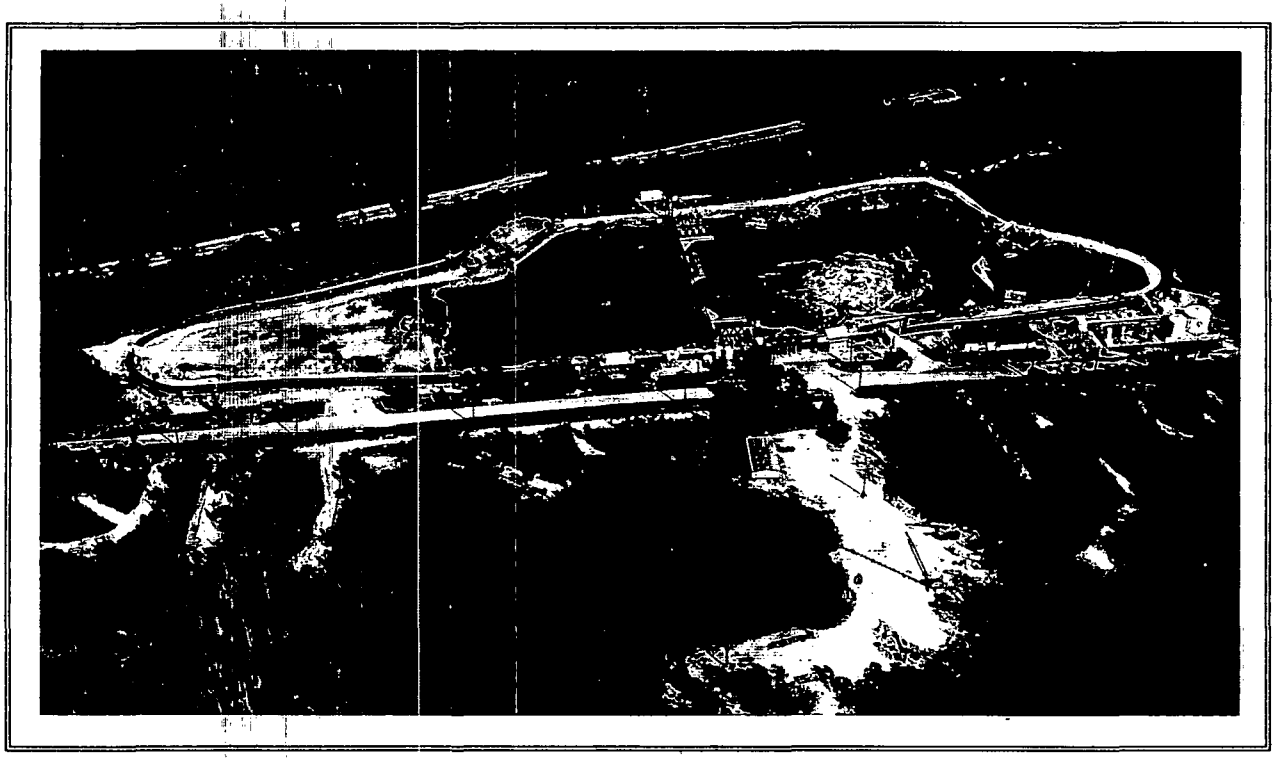
French Ltd. Project

FLTG, Inc.
Crosby, Texas

MONTHLY PROGRESS REPORT



Submitted to:

U.S. Environmental Protection Agency - Region 6
and
Texas Natural Resource Conservation Commission

March, 1995

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Samples Dated March, 1995

Project I.D.	Date Received	Project I.D.	Date Received
M03A0308	03/01/95	M04C0018	03/19/95
S14K0012	03/01/95	M03A0313	03/20/95
M01D0052	03/03/95	M03A0315	03/20/95
M03A0309	03/03/95	M04A0028	03/20/95
S14L0024	03/03/95	S14K0015	03/20/95
S14L0025	03/03/95	S14L0026	03/20/95
S16K0004	03/07/95	S16A0008	03/20/95
M03A0310	03/08/95	M04B0026	03/21/95
M03A0311	03/09/95	M06C0025	03/21/95
S14C0007	03/10/95	S14A0092	03/21/95
S14K0013	03/15/95	M03A0314	03/22/95
M03A0312	03/16/95	M01D0054	03/28/95
S14K0014	03/16/95	M03A0316	03/28/95

1.0 INTRODUCTION

This report covers the activities of FLTG, Inc. and the French Limited Project for March, 1995. FLTG, Inc. manages the project for the French Limited Task Group of Potentially Responsible Parties.

During March, 1995, the project team focused on the following activities and issues:

- Health, Safety, and Quality.
- Safety awareness.
- Contractor safety.
- HAZOP of daily work assignments.
- Detecting and correcting work place hazards.
- Response to changing site conditions.
- Injection of Cell D water.
- Maintain DO, OUR, HMB, and plate count in Cell D.
- Vegetation evaluation in Cell E.
- Operation and maintenance of the aquifer remediation system.
- In-situ aquifer bioremediation.
- Lease property south of Gulf Pump Road.
- Water treatment plant operation and maintenance.
- Operation of the data base management system.

- Wetlands project construction.
- This report includes:
    - A summary of March activities, issues, and progress.
    - Lagoon area re-vegetation.
    - Groundwater and Subsoil Remediation activities, issues, and progress.
    - Groundwater Treatment Plant activities and issues.
    - Ambient Air Management status.
    - QA/QC status and data.
    - Site management activities and issues.
    - Wetlands restoration activities, issues, and progress.

2.0 SUMMARY

2.1 Summary of Activities and Progress

2.1.1 Health and Safety

There were no personal injury incidents.

There were no equipment damage incidents.

A security guard was removed from the project for repeatedly sleeping on the job.

All site workers earned the March safety bonus.

Conducted safety meetings and job inspections at the start of each shift; reviewed safety issues before starting all jobs.

All employees and contractors attended daily safety meetings.

Conducted daily mini-HAZOP of all specific jobs.

Supervision made 196 specific on-the-job safety contacts.

Emphasized wet, slippery conditions.

Inspected and certified all fire extinguishers.

Emphasized the hazards and precautions associated with working around moving equipment.

Conducted 22 specific health and safety inspections.

Logged all safety issues each shift; less than 24-hour response to all safety issues.

The daily raffle ticket safety awareness program has been effective in maintaining daily safety awareness among all site personnel and contractors.

Conducted personnel exposure monitoring, and all results were within acceptable levels. The most recent results are in Table 2-1.

2.1.2 Quality/QAQC/Data Base Management

The total quality process was used. The status of the goals is shown on Table 2-2.

Raw data is being validated as per the plan.

The data base management system operated with no problems or delays.

There were no data or reports rejected due to errors.

American Analytical continued to provide data on time.

2.1.3 Lagoon

Maintained a high level of biological activity in Cell D; OUR and HMB were high. Added O_2 to Cell D using a downdraft aerator for five days.

Continued subsurface injection of Cell D water in Cell E and Cell F; there were no problems or issues, and adequate gradient control was maintained.

Continued evaluation of various tree and bush species for passive dewatering of the subsurface inside the floodwall.

Tested floodwall gate closure.

2.1.4 Ambient Air Management

Ambient air quality was manually checked daily with portable analyzers, and no response action was required.

Air quality was continuously monitored in all potential exposure areas and on all special jobs.

Time-integrated samples were collected in three work areas, and the results indicated no exposure; the data is shown in Table 2-1.

2.1.5 Aquifer Remediation

Monitored status of DNAPL plumes.

Continued routine S1 and INT oxygen and nutrient injection.

Continued to evaluate ways to increase INT remediation rates.

Flows continued to increase in the sand fracture areas.

Operated vacuum-enhanced pumping systems for INT wells.

Issued weekly well status and performance reports.

Inspected and adjusted all wells each day.

Continued daily maintenance of recovery and injection wells.

Completed monthly well measurements and sampling; TOC levels continue to decrease.

Maintained O_2 content of injection water at about 40-45 ppm.

Shut off 73 production or injection wells in areas that have reached aquifer remediation shut-off criteria; monthly sampling indicated no rebound.

Submitted a refinement notice to clarify the aquifer remediation criteria.

2.1.6 Groundwater Treatment

The treated water did not require carbon treatment to maintain effluent criteria.

There was no downtime.

The water treatment plant effluent data is shown in Table 2-3. All effluent samples met criteria.

TOC input to T-101 continued to decrease.

The process operators collected all the process water and ground water samples.

2.1.7 Wetlands Restoration

Dewatering was required after every rainfall.

Continued topsoil replacement in selected areas.

Continued excavation of flow channels; frequent wet weather delayed progress on site excavation.

Started construction of the bridges.

Reviewed status, progress, and issues with the TNRCC.

Conducted a site tour for the Houston Geological Society.

2.1.8 Site Management and Issues

Used the on-site laboratory to process all the operational control samples.

Reviewed site progress and issues in detail with EPA and TNRCC on a regular basis.

Validated all analytical data as per the QAQC plan.

Reviewed project status and issues each day to ensure focus on critical issues - safety, quality, cost, INT zone progress.

Issued weekly cost, schedule, and maintenance reports.

Reviewed progress on issues and action plans each week.

Reduced aquifer remediation operational and maintenance requirements.

Reduced technical support MH's.

Evaluated site security requirements.

Developed project manpower reduction plan.

TABLE 2-1

Ambient Air Management
Time Integrated Exposure Data

Compound	PEL 8 hour PPM	M01D005401 8-Mar-95 WTP Operator		M01D005402 8-Mar-95 Sample Trailer		M01D005403 8-Mar-95 Security	
		% of PEL	PPM	% of PEL	PPM	% of PEL	PPM
Chloromethane	50	0.001	0.000	0.001	0.001	0.002	0.001
Bromomethane	5	0.000	0.000	0.000	0.000	0.000	0.000
Vinyl chloride	1	0.000	0.000	0.000	0.000	0.000	0.000
Chloroethane	1000	0.000	0.000	0.000	0.000	0.000	0.000
Dichloromethane	50	0.002	0.001	0.005	0.003	0.010	0.005
Acetone	750	0.001	0.004	0.001	0.005	0.001	0.005
Carbon disulfide	10	0.000	0.000	0.000	0.000	0.000	0.000
1,1-Dichloroethene	5	0.000	0.000	0.074	0.004	0.303	0.015
1,1-Dichloroethane	100	0.000	0.000	0.000	0.000	0.000	0.000
trans-1,2-Dichloroethe	200	0.000	0.001	0.002	0.004	0.004	0.008
Chloroform	10	0.018	0.002	0.003	0.000	0.005	0.001
1,2-Dichloroethane	10	0.002	0.000	0.000	0.000	0.000	0.000
2-Butanone	200	0.000	0.000	0.000	0.001	0.000	0.000
1,1,1-Trichloroethane	350	0.000	0.000	0.000	0.000	0.000	0.000
Carbon Tetrachloride	5	0.000	0.000	0.000	0.000	0.000	0.000
Vinyl acetate	10	0.000	0.000	0.000	0.000	0.000	0.000
Bromodichloromethane			0.000		0.000		0.000
1,2-Dichloropropane	75	0.000	0.000	0.000	0.000	0.000	0.000
cis-1,3-Dichloropropen	1	0.000	0.000	0.000	0.000	0.000	0.000
Trichloroethene	50	0.000	0.000	0.000	0.000	0.000	0.000
Dibromochloromethane			0.000		0.000		0.000
1,1,2-Trichloroethane	10	0.000	0.000	0.000	0.000	0.000	0.000
Benzene	1	0.000	0.000	0.069	0.001	0.000	0.000
trans-1,3-Dichloroprop	1	0.000	0.000	0.000	0.000	0.000	0.000
2-Chloroethylvinyl ether			0.000		0.000		0.000
Bromoform	0.5	0.000	0.000	0.000	0.000	0.000	0.000
4-Methyl-2-pentanone	50	0.000	0.000	0.000	0.000	0.000	0.000
2-Hexanone	5	0.000	0.000	0.000	0.000	0.000	0.000
Tetrachloroethene	50	0.000	0.000	0.000	0.000	0.000	0.000
1,1,2,2-Tetrachloroet	1	0.000	0.000	0.000	0.000	0.000	0.000
Toluene	100	0.000	0.000	0.001	0.001	0.000	0.000
Chlorobenzene	10	0.000	0.000	0.000	0.000	0.000	0.000
Ethylbenzene	100	0.000	0.000	0.000	0.000	0.000	0.000
Styrene	50	0.000	0.000	0.000	0.000	0.000	0.000
Xylene (total)	100	0.000	0.000	0.000	0.000	0.000	0.000
Hexane			0.002		0.002		0.003

TABLE 2-2

Project Quality

Status as of 03/31/95		Goals	
Yes	1)	No OSHA recordable injuries.	
Attention	2)	100% compliance with all safety rules and procedures.	
Yes	3)	No citations for violations of applicable, relevant and appropriate regulations.	
Yes	4)	100% attendance (including subcontractors) at daily safety meetings.	
Attention	5)	Less than 24-hour response time on health and safety issues.	
Yes	6)	100% sign-in and security clearance.	
Yes	7)	No invalidation of reported data due to QA/QC issues.	
	8)	Spend less than:	MH/Month
Yes		• Direct hire	3,000
Yes		• FLTG management	700
Yes/Attention		• Technical support (3 people)	600
Yes		• Maintenance support	120
Yes	9)	Pump at least 90 gpm; inject at least 60 gpm.	
Yes	10)	Remediate shallow alluvial zone aquifer in 60 months.	
Yes	11)	Hold analytical cost to less than $20,000 per month (1994 only).	
Yes	12)	No unscheduled overtime (per day or per week).	
Yes	13)	No agency contacts which require 3rd party resolution.	
Yes	14)	Documented training of site personnel for all work assignments.	
Yes	15)	Weekly audit of actual performance versus goals.	

TABLE 2-3
Treated Water Results Summary

Collected	Set No.	pH (6-9)		TSS 5 PPM		TOC 55 PPM		O&G 15 PPM		Benzene 150 PPB		Chlor HC's 500 PPB		Total PCBs 0.65 PPB		Napthalene 300 PPB	
		Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg
1-Dec-94	M03A0287	7.4		1.		34.8		2.5		6.		526.		.16		5.	
5-Dec-94	M03A0288	7.57		1.		28.5		2.5		6.		305.		.16		5.	
8-Dec-94	M03A0289	7.52		1.		40.6		2.5		6.		480.		.16		5.	
12-Dec-94	M03A0290	7.43		4.		33.		2.5		6.		342.		.16		5.	
15-Dec-94	M03A0291	8.13		.5		23.		2.5		6.		145.		.16		5.	
19-Dec-94	M03A0292	7.96		1.		29.3		2.5		2.5		75.		.16		5.	
22-Dec-94	M03A0293	7.91		4.		17.8		2.5		2.5		170.		.16		5.	
26-Dec-94	M03A0294	7.68		10.		41.8		2.5		6.		353.		.16		5.	
29-Dec-94	M03A0295	7.79	7.7	1.	2.6	15.4	29.4	2.5	2.5	2.5	4.8	205.	289	.16	.16	5.	5.
2-Jan-95	M03A0296	7.78	7.8	4.	2.9	12.9	26.9	2.5	2.5	5.	4.7	275.	261	.16	.16	5.	5.
5-Jan-95	M03A0297	7.81	7.8	5.	3.4	19.	25.9	2.5	2.5	6.	4.7	249.	255	.16	.16	5.	5.
9-Jan-95	M03A0298	7.8	7.8	7.	4.1	9.8	22.4	2.5	2.5	2.5	4.3	124.	215	.16	.16	5.	5.
12-Jan-95	M03A0299	7.77	7.8	2.	3.8	9.8	19.9	2.5	2.5	2.5	3.9	200.	200	.16	.16	5.	5.
16-Jan-95	M03A0300	7.61	7.8	4.	4.2	18.3	19.3	2.5	2.5	6.	3.9	393.	227	.16	.16	5.	5.
19-Jan-95	M03A0301	7.44	7.7	2.	4.3	19.8	18.3	2.5	2.5	5.	4.2	454.	269	.16	.16	5.	5.
23-Jan-95	M03A0302	7.82	7.7	9.	4.9	35.5	20.3	2.5	2.5	6.	4.6	192.	272	.16	.16	5.	5.
26-Jan-95	M03A0303	7.66	7.7	.5	3.8	20.5	17.9	2.5	2.5	6.	4.6	234.	258	.16	.16	5.	5.
30-Jan-95	M03A0304	7.15	7.6	4.	4.2	44.3	21.1	2.5	2.5	25.	7.1	2326.	494	.16	.16	5.	5.
2-Feb-95	M03A0305	7.28	7.6	.5	3.8	11.7	21.	2.5	2.5	6.	7.2	613.	532	.16	.16	5.	5.
6-Feb-95	M03A0306	7.55	7.6	1.	3.3	11.7	20.2	2.5	2.5	5.	7.1	411.	550	.16	.16	5.	5.
9-Feb-95	M03A0307	7.52	7.5	5.	3.1	8.8	20.	2.5	2.5	5.	7.4	226.	561	.16	.16	5.	5.
13-Feb-95	M03A0308	7.5	7.5	22.	5.3	9.7	20.	2.5	2.5	5.	7.7	349.	578	.16	.16	5.	5.
16-Feb-95	M03A0309	7.33	7.5	.5	4.9	5.2	18.6	2.5	2.5	5.	7.6	276.	565	.16	.16	5.	5.
20-Feb-95	M03A0310	7.37	7.5	6.	5.4	5.8	17.	2.5	2.5	4.	7.4	193.	536	.16	.16	5.	5.
23-Feb-95	M03A0311	7.29	7.4	1.	4.5	1.	13.2	2.5	2.5	2.5	7.1	60.	521	.16	.16	5.	5.
27-Feb-95	M03A0312	7.46	7.4	3.	4.8	9.5	12.	2.5	2.5	2.5	6.7	164.	513	.16	.16	5.	5.
2-Mar-95	M03A0313	7.47	7.4	.5	4.4	8.5	8.	2.5	2.5	2.5	4.2	145.	271	.16	.16	5.	5.
6-Mar-95	M03A0314	7.49	7.4	1.	4.4	8.1	7.6	2.5	2.5	2.5	3.8	128.	217	.16	.16	5.	5.
9-Mar-95	M03A0315	7.38	7.4	1.	4.4	8.	7.2	2.5	2.5	2.5	3.5	193.	193	.16	.16	5.	5.
13-Mar-95	M03A0316	7.64	7.4	5.	4.4	7.2	7.	2.5	2.5	2.5	3.22	111.	180	.16	.16	5.	5.
16-Mar-95	M03A0317	7.55	7.4	.5	2.1	6.	6.6	2.5	2.5	2.5	2.9	150.	158	.16	.16	5.	5.
20-Mar-95	M03A0318	7.41	7.5	.5	2.1	6.6	6.7	2.5	2.5	2.5	2.7	97.	138	.16	.16	5.	5.
23-Mar-95	M03A0319	7.45	7.5	1.	1.5	6.	6.8	2.5	2.5	2.5	2.5	185.	137.	.16	.16	5.	5.
27-Mar-95	M03A0320	7.83	7.5	3.	1.7	12.2	8.	2.5	2.5	6.	2.89	325.	166	.16	.16	5.	5.
30-Mar-95	M03A0321	7.47	7.5														
3-Apr-95	M03A0322	7.42	7.5														

Discharge sample of 17-Oct destroyed in flood.

Chlorinated hydrocarbons value is sum of detected concentrations of 21 volatile chlorinated hydrocarbons on target compound list.

TABLE 2-3 (Continued)
Treated Water Results Summary

Collected	Set No.	As		Ba		Cd		Cr		Cu		Pb		Mn		Hg		Ni		Se		Ag		Zn	
		150 PPB		200 PPB		50 PPB		500 PPB		15 PPB		66 PPB		300 PPB		1 PPB		148 PPB		20 PPB		5 PPB		162 PPB	
		Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg
1-Dec-94	M03A0287	11.		109.		.1		.5		1.		.5		7.		.1		10.		1.3		.5		4.	
5-Dec-94	M03A0288	12.		121.		.1		1.		3.		1.		19.		.1		.9		1.3		.5		9.	
8-Dec-94	M03A0289	14.		128.		.1		1.		.3		.5		3.		.1		10.		1.3		.2		3.8	
12-Dec-94	M03A0290	7.		154.		.1		7.		4.		.5		9.		.1		13.		1.3		.2		5.	
15-Dec-94	M03A0291	49.		92.		.1		2.		.7		.5		3.		.1		1.		5.		.2		5.	
19-Dec-94	M03A0292	16.		93.		.1		1.		1.		.5		3.		.1		2.		1.		.2		4.	
22-Dec-94	M03A0293	17.		130.		.1		.2		1.4		.5		2.		.1		2.		1.3		.2		1.5	
26-Dec-94	M03A0294	11.		151.		.1		.2		1.8		.5		9.		.1		4.		1.3		.2		6.	
29-Dec-95	M03A0295	18.	17.2	114.	121	.2	.1	1.	1.5	1.	1.6	.5	.6	4.	6.6	.1	.1	3.	5.1	5.	2.1	.2	.2	4.	4.7
2-Jan-95	M03A0296	9.9	17.1	172.	128	.1	.1	2.1	1.7	1.6	1.6	.5	.6	18.	7.8	.1	.1	1.	4.1	1.2	2.	.2	.2	7.	5.
5-Jan-95	M03A0297	14.	17.3	151.	132	.1	.1	3.	1.9	2.	1.5	.5	.5	57.	12.	.1	.1	6.	4.7	1.2	2.	.2	.2	20.	6.3
9-Jan-95	M03A0298	12.	17.1	171.	136	.1	.1	.9	1.9	3.	1.8	.5	.5	23.	14.2	.1	.1	4.	4.	1.3	2.	.2	.2	7.	6.6
12-Jan-95	M03A0299	16.	18.1	143.	135	.1	.1	.2	1.2	2.	1.6	.5	.5	2.	13.4	.1	.1	2.	2.8	1.3	2.	.2	.2	3.	6.4
16-Jan-95	M03A0300	12.	14.	146.	141	.1	.1	.6	1.	3.	1.9	.5	.5	1.	13.2	.1	.1	3.	3.	1.3	1.6	.2	.2	6.	6.5
19-Jan-95	M03A0301	18.	14.2	135.	146	.1	.1	.4	.9	2.	2.	.5	.5	2.	13.1	.1	.1	4.	3.2	1.3	1.7	.2	.2	18.	8.1
23-Jan-95	M03A0302	12.	13.7	140.	147	.1	.1	.2	.9	2.	2.	.5	.5	3.	13.2	.1	.1	6.	3.7	1.3	1.7	.2	.2	16.	9.7
26-Jan-95	M03A0303	16.	14.2	148.	147	.1	.1	.2	.9	2.	2.1	.5	.5	2.	12.4	.1	.1	2.	3.4	1.3	1.7	.2	.2	12.	10.3
30-Jan-95	M03A0304	9.	13.2	238.	160	.1	.1	.2	.8	2.	2.2	.5	.5	43.	16.8	.1	.1	3.	3.4	1.3	1.2	.2	.2	5.	10.4
2-Feb-95	M03A0305	10.	13.2	192.	163	.1	.1	1.	.7	2.	2.2	.5	.5	15.	16.4	.1	.1	4.	3.8	1.3	1.2	.2	.2	8.	10.6
6-Feb-95	M03A0306	11.	12.9	188.	167	.1	.1	.2	.4	1.	2.1	.5	.5	4.	10.6	.1	.1	2.	3.3	1.3	1.3	.2	.2	5.	8.9
9-Feb-95	M03A0307	16.	13.3	195.	169	.1	.1	.2	.3	4.	2.2	.5	.5	6.	8.7	.1	.1	6.	3.6	1.3	1.3	.2	.2	11.	9.3
13-Feb-95	M03A0308	13.	13.	184.	174	.1	.1	2.	.5	1.	2.1	.5	.5	15.	10.1	.1	.1	5.	3.9	1.3	1.3	.2	.2	8.	9.9
16-Feb-95	M03A0309	12.	13.	184.	178	.1	.1	.2	.5	1.	1.9	.5	.5	6.	10.7	.1	.1	6.	4.2	1.3	1.3	.2	.2	7.	10.
20-Feb-95	M03A0310	14.	12.6	191.	184	.1	.1	2.	.7	2.	1.9	.5	.5	27.	13.4	.1	.1	8.	4.7	1.3	1.3	.3	.2	6.	8.7
23-Feb-95	M03A0311	13.	12.7	165.	187	.1	.1	1.	.8	2.	1.9	.5	.5	3.	13.4	.1	.1	8.	4.9	1.3	1.3	.2	.2	9.	7.9
27-Feb-95	M03A0312	22.	13.3	144.	187	.1	.1	4.5	1.2	3.	2.	.5	.5	3.	13.6	.1	.1	12.	6.	1.3	1.3	.5	.2	2.5	6.8
2-Mar-95	M03A0313	23.	14.9	133.	175	.1	.1	2.	1.4	1.	1.9	.5	.5	15.	10.4	.1	.1	8.	6.6	1.3	1.3	.5	.2	6.	6.9
6-Mar-95	M03A0314	17.	15.7	130.	168	1.	.2	1.	1.4	3.	2.	2.2	.7	3.	9.1	.1	.1	2.5	6.4	.5	1.2	.8	.3	8.	6.9
9-Mar-95	M03A0315	24.	17.1	111.	160	.1	.2	.2	1.4	.8	2.	.5	.7	4.	9.1	.1	.1	4.	6.6	1.3	1.2	.2	.3	6.	7.1
13-Mar-95	M03A0316	17.	17.2	121.	151	.1	.2	.2	1.4	1.	1.6	.5	.7	41.	13.	.1	.1	3.	6.3	1.3	1.2	.2	.3	5.	6.4
16-Mar-95	M03A0317	23.	18.3	114.	144	.1	.2	.3	1.3	3.	1.9	.5	.7	2.	11.6	.1	.1	3.	6.1	1.3	1.2	.2	.3	11.	6.7
20-Mar-95	M03A0318	18.	19.	112.	136	.1	.2	.2	1.3	3.	2.1	.5	.7	2.	11.1	.1	.1	2.	5.6	1.3	1.2	.2	.3	3.	6.3
23-Mar-95	M03A0319	19.	19.6	119.	128	.1	.2	.2	1.	2.	2.1	.5	.7	2.	8.3	.1	.1	3.	5.1	1.3	1.2	.2	.3	4.	6.1
27-Mar-95	M03A0320	14.	19.7	130.	124	.1	.2	3.	1.3	2.	2.1	.5	.7	22.	10.4	.1	.1	5.	4.7	1.3	1.2	.2	.3	40.	9.5

Discharge sample of 17-Oct destroyed in flood.
Metals values in PPB.

2.2 Problem Areas and Recommended Solutions

Problem	Solution
Maintain high level of safety awareness.	Daily raffle ticket program. Daily safety meetings. Supervisory safety contacts.
On-the-Job safety attention.	Contact all employees at least twice per day on safety issues. Review job details as work proceeds. Stop and challenge approach.
Hazard detection and response.	Safety inspections. HAZOP's on all jobs. Constant awareness.
Lagoon remediation confirmation.	Certification letter from EPA.
Low flow in some INT pumping and injection wells.	Vacuum enhanced pumping. Increase injection pressure in some areas.
Slow progress on wetlands excavation.	Adjust work schedules when having wet weather; flexible field work plan.
Increase INT zone remediation rate.	Increase pumping and injection rates.
Cell D water handling.	Inject in Cell E subsurface.
Low flushing rate in INT zone just west of INT-11 wall.	Install two injection wells and one pumping well.
Nutrient circulation on for west end of INT plume.	Install one pumping well.

2.3 Problems Resolved

None.

2.4 Deliverables Submitted

Annual Groundwater Monitoring Report
February, 1995 monthly report
Natural Attenuation Work Plan
Refinement Notice RN-082
Refinement Notice RN-083

2.5 Upcoming/Ongoing Events and Activities

Daily safety meetings and inspections.

Daily safety awareness program.

Emphasis on multiple work assignments.

Emphasis on hazard identification and response.

Attention to safety details.

Respond to HAZOP audits.

Increase nutrient and oxygen circulation in specific INT areas.

Daily well pump checks and maintenance.

Aquifer compliance testing in select areas and zones.

Operate S1 and INT wells for expedited in-situ bioremediation.

Ship surplus equipment.

Injection of Cell D water.

Evaluate vegetation in Lagoon area.

Operate Data Base Management System.

Total Quality process.

Continue biological activity monitoring in S1 wells and INT wells.

Issue permeability results of INT-11 area containment wall tests.

Minimize carbon usage in Water Treatment Plant.

Develop lagoon closure plan.

Submit MCC-1 area remediation report.

Continue wetlands restoration project.

2.6 Key Staffing Changes

None.

2.7 Percent Complete

Research & Development	- 98%
Facilities	- 100%
Slough	- 100%
Subsoil Investigation	-100%
Floodwall	-100%
Lagoon Remediation	-100%
Groundwater	- 79%
Lagoon Dewatering/Fixation	- 100%
Water Treatment	- 76%
Wetlands	- 75%
Demobilization	- 65%
Monitoring	- 61%

2.8 Schedule

All deliverables are on schedule.

Complete wetlands construction by July 1, 1995.

Complete active aquifer remediation by March 1, 1996.

2.9 Operations and Monitoring Data

The operations and monitoring data are submitted as parts of Sections 3.0, 4.0, 5.0, and 6.0 of this report, and the supporting data are stored in secure storage at the French project office.

2.10 Credits Accrued/Applied

Status of Credits

	Accrued this period	Accrued to date	Applied this period	Applied to date	Running total
December 1990	34	34	0	0	34
December 1991	0	100	0	0	100
December 1992	0	101	0	2	99
December 1993	0	104	0	4	100
January 1994	0	104	0	4	100
February 1994	0	104	0	4	100
March 1994	0	104	0	4	100
April 1994	0	104	0	4	100
May 1994	0	104	0	4	100
June 1994	0	104	0	4	100
July 1994	5	109	0	4	105
August 1994	0	109	0	4	105
September 1994	0	109	0	4	105
October 1994	0	109	0	4	105
November 1994	0	109	0	4	105
December 1994	0	109	0	4	105
January 1995	0	109	0	4	105
February 1995	0	109	0	4	105
March 1995	0	109	0	4	105

2.11 Community Relations

Maintained 24-hour, call-in Hot Line.

Conducted five site tours for interested parties.

Contacted nearby local residents with update on site activities.

Contacted several Riverdale residents with site status report.

Leased selected property along Maple Drive in Riverdale.

Reviewed Barett Station community development.

3.0 LAGOON

3.1 Summary of Activities

Evaluating test plots of various plants in Cell E. Planted test plots of 15 different kinds of trees. Fertilized the grass areas with diammonium phosphate.

Injected about 196,000 gallons of "clean" Cell D water in Cell E subsurface.

Operated aerator in Cell D to expedite biomass degradation.

Evaluating various options for gradient control inside the lagoon.

Reviewed CH2M Hill's QAQC report on Cell D/F remediation confirmation samples.

3.2 Problems and Response Action

Problem	Recommended Solution
Ground cover growth slow in Cell E.	Hydroseed a rye grass blend. Water frequently. Evaluate different grass blends.
Poor tree growth in Cell E.	Evaluate different types of trees. Design an irrigation system.
Treat Cell D water.	Subsurface injection.

3.3 Problems Resolved

None.

3.4 Deliverables Submitted

None.

3.5 Upcoming Events and Activities

Maintain pH, DO, OUR, and nutrient levels in Cell D.

Operate aerator/mixer in Cell D as required.

Inject Cell D water in Cell E subsurface.

Hydroseed Cell E and Cell F as required.

Maintain vegetation in Cell E.

4.0 GROUNDWATER AND SUBSOIL REMEDIATION

4.1 Summary of Activities

4.1.1 Operation of Production and Injection Well Systems

Operation of the production and injection wells systems during March 1995 is summarized in Table 4-1. Flows from the production well system are summarized in Table 4-2 and Figure 4-1. Flows into the injection well system are summarized in Table 4-3 and Figure 4-2. Individual well flows are summarized in Table 4-4. INT-55 and -56 were added to VEP program.

4.1.2 Operational Monitoring

Operational monitoring associated with the groundwater and subsoil remediation system during March 1995 is summarized in Table 4-5. Results of the annual GW sampling have been issued to the EPA and placed in the appropriate repositories.

4.1.3 Data Management and Evaluation

Operational monitoring data from the groundwater and subsoil remediation system for this reporting period were entered into FLTG's database. Tables and figures for this section of the Monthly Progress Report were generated from this database.

4.2 Problems and Response Actions

Groundwater production and injection rates were at or above the targets of both production and injection wells. The new goal for production wells rates is 100 gpm. See Table 4-1. Nutrient and dissolved oxygen concentrations in injection water were at or close to target levels. No specific response action is planned.

Table 4-1

Groundwater System Operation - March 1995 *Reporting Period: February 28 - March 31 (32 days)*
Production System
No. of production wells: 111 (S1 unit, 53; INT unit, 58) No. of operational wells by end of month: 63 (S1 unit, 17; INT unit, 46)
Changes in system since last month: add 55, 56 to VEP; complete INT-228 as prod. well
No. of wells off line having reached criteria: 32 16 wells off inside lagoon
Groundwater produced: 5.0 M gal; 247.0 M gal since startup based on main meter Total production rate: avg. 117.3 gpm (target 100 gpm); range 91-124 gpm S1 production rate: avg. 61.0 gpm; avg. 3.0 gpm per metered well INT production rate: avg. 56.3 gpm; avg. 1.3 gpm per metered well Total flow rate apportioned between S1 and INT units based on individual well meter readings; average flows based on 32 days operation
TOC (non-volatile) concentration avg. 41 ppm; range 32-54 ppm TOC mass removed: 1,706 lb. (366,071 lb. since startup); 53 lb./day
Injection System
No. of injection wells: 65 (S1 unit, 19 [11 on line]; INT unit, 46 [31 on line])
Rainfall during period: 3.85 inches
Changes in system since last month: converted S1-133 to injection; completed INT-226 and -227 as new injection wells
Groundwater injected: 6.4 M gal (144.4 M gal since startup) based on main meters
S1 unit injected: 3.9 M gal (79.1 M gal since startup) INT unit injected: 2.5 M gal (65.3 M gal since startup) Total injection rate: avg. 138 gpm (target 100 gpm); range 124-149 gpm S1 injection rate: avg. 49.5 gpm; avg. 4.5 gpm per well INT injection rate: avg. 60.9 gpm; avg. 2.0 gpm per well Total flow rate apportioned between S1 and INT units based on individual well meter readings; average flows based on 28 days operation
Oxygen added to injection water: 10,735 lb.; 335.5 lb./day used (input efficiency = 24%) Avg. DO in injection water: S1, 36.8 ppm; INT, 57.9 ppm (target 40 ppm) ⇒ 81 lb./day injected
Volume of 9.1% w/w KNO_3 nutrient solution added to INT unit, and S1-North wells: 7,592 gal Nutrient flow rate: 237.3 gpd, 0.31% of INT + S1-North inflow rate (target 0.38%) Calculated injection water NO_3 concentration: 33.1 mg/L-N (target 50 mg/L-N)

Note that average monthly flow rates at individual wells (calculated from weekly individual well flow meter readings) are not used directly to determine S1 and INT unit inflows and outflows, but are used to apportion total production and injection flows (calculated from daily main production and injection meter readings) between S1 and INT units. Average flows are based on the 32 day reporting period.

Table 4-2

Daily Groundwater Production and TOC Removal
March 1995

Date	Project Day	T-101 Outflow Rate (FQ-101A) (gpd)	T-101 Outflow Rate (gpm)	T-101 Influent Ave. TOC (mg/L)	T-101 Influent TOC Loading (kg/day)
28-Feb	1147	178,200	124	41	28
1-Mar	1148	135,700	94	46	24
2-Mar	1149	150,700	105	43	25
3-Mar	1150	142,800	99	41	22
4-Mar	1151	141,200	98	39	21
5-Mar	1152	141,000	98	48	26
6-Mar	1153	130,900	91	38	19
7-Mar	1154	153,800	107	38	22
8-Mar	1155	149,400	104	42	24
9-Mar	1156	162,700	113	39	24
10-Mar	1157	151,000	105	37	21
11-Mar	1158	154,600	107	58	34
12-Mar	1159	143,200	99	38	21
13-Mar	1160	164,000	114	35	22
14-Mar	1161	165,100	115	33	21
15-Mar	1162	167,300	116	32	20
16-Mar	1163	161,300	112	32	20
17-Mar	1164	155,100	108	40	23
18-Mar	1165	170,700	119	40	26
19-Mar	1166	166,400	116	51	32
20-Mar	1167	153,600	107	46	27
21-Mar	1168	154,800	108	39	23
22-Mar	1169	157,500	109	38	23
23-Mar	1170	167,400	116	45	29
24-Mar	1171	161,000	112	54	33
25-Mar	1172	156,900	109	37	22
26-Mar	1173	154,600	107	37	22
27-Mar	1174	166,100	115	51	32
28-Mar	1175	159,300	111	28	17
29-Mar	1176	155,400	108	41	24
30-Mar	1177	153,800	107	35	20
31-Mar	1178	165,100	115	37	23
Month Average		155,956	108	41	24
Month Total		4,990,600		1706 lbs.	766

Table 4-3

Daily Injection Flows
March 1995

Date	Project Day	INT South INT-90/100 S1 North Injection Wells FQ905		INT North (not INT-90/100) Injection Wells Meter FQ-906		S1 South Injection Wells Meter FQ-909		Total Injection Rate		Oxygen	Nutrients
		(gpd)	(gpm)	(gpd)	(gpm)	(gpd)	(gpm)	(gpd)	(gpm)	lbs	Gallons
28-Feb	1147	30,600	21	38,400	27	121,000	84	190,000	132	320	228
1-Mar	1148	30,200	21	37,400	26	119,800	83	187,400	130	505	220
2-Mar	1149	29,800	21	37,700	26	117,600	82	185,100	129	290	251
3-Mar	1150	30,200	21	37,800	26	116,100	81	184,100	128	400	243
4-Mar	1151	30,900	21	32,100	22	115,900	80	178,900	124	220	221
5-Mar	1152	31,600	22	32,300	22	116,800	81	180,700	125	200	214
6-Mar	1153	33,200	23	34,200	24	113,400	79	180,800	126	360	193
7-Mar	1154	33,400	23	41,300	29	114,600	80	189,300	131	320	251
8-Mar	1155	30,600	21	40,200	28	115,500	80	186,300	129	320	179
9-Mar	1156	34,300	24	41,700	29	116,400	81	192,400	134	395	201
10-Mar	1157	36,100	25	40,300	28	118,100	82	194,500	135	260	248
11-Mar	1158	34,600	24	41,000	28	120,300	84	195,900	136	400	224
12-Mar	1159	33,400	23	39,700	28	117,400	82	190,500	132	320	218
13-Mar	1160	34,300	24	40,600	28	121,800	85	196,700	137	340	217
14-Mar	1161	33,300	23	41,200	29	119,500	83	194,000	135	320	206
15-Mar	1162	33,700	23	44,600	31	117,400	82	195,700	136	360	161
16-Mar	1163	33,600	23	44,200	31	124,500	86	202,300	140	320	200
17-Mar	1164	33,400	23	43,900	30	126,800	88	204,100	142	295	243
18-Mar	1165	33,900	24	44,100	31	127,900	89	205,900	143	400	244
19-Mar	1166	34,700	24	44,400	31	129,200	90	208,300	145	295	232
20-Mar	1167	33,500	23	43,100	30	125,500	87	202,100	140	400	206
21-Mar	1168	37,100	26	43,400	30	123,400	86	203,900	142	360	270
22-Mar	1169	42,100	29	45,500	32	125,800	87	213,400	148	340	285
23-Mar	1170	41,800	29	45,000	31	128,100	89	214,900	149	320	274
24-Mar	1171	33,200	23	45,900	32	129,700	90	208,800	145	380	293
25-Mar	1172	38,900	27	44,500	31	125,700	87	209,100	145	300	273
26-Mar	1173	38,600	27	44,400	31	125,300	87	208,300	145	300	236
27-Mar	1174	38,400	27	45,400	32	127,900	89	211,700	147	300	232
28-Mar	1175	37,800	26	47,100	33	126,000	88	210,900	146	400	281
29-Mar	1176	38,300	27	48,200	33	124,600	87	211,100	147	360	278
30-Mar	1177	39,400	27	47,200	33	125,900	87	212,500	148	315	307
31-Mar	1178	40,100	28	44,100	31	125,500	87	209,700	146	320	263
Month Average		34,844	24	41,903	29	121,981	85	198,728	138	335	237
Month Total		1,115,000		1,340,900		3,903,400		6,359,300		10,735	7,592

Table 4-4

Average Production and Injection Flow Rates - March 1995

Flow rates are averages for the period February 28 - March 31 (32 days)

S1 Production Wells (17)

Well ID	gpm
S1-1	OFF
S1-2	OFF
S1-3	OFF
S1-4	OFF
S1-5	OFF
S1-6	OFF
S1-7	OFF
S1-8	OFF
S1-9	OFF
S1-10	OFF
S1-11	OFF
S1-12	OFF
S1-13	OFF
S1-14	OFF
S1-15	OFF
S1-16	OFF
S1-17	1.4
S1-18	3.5
S1-19	2.7
S1-20	7.1
S1-21	1.1
S1-22	3.0
S1-23	OFF
S1-24	OFF
S1-25	4.6
S1-26	1.9
S1-27	4.8
S1-28	3.1
S1-29	1.9
S1-30	4.6
S1-31	OFF
S1-32	3.1
S1-33	OFF
S1-34	OFF
S1-35	OFF
S1-36	OFF
S1-37	OFF
S1-38	OFF
S1-39	OFF
S1-40	OFF
S1-41	OFF
S1-42	OFF
S1-43	OFF
S1-44	OFF
S1-45	OFF
S1-46	OFF
S1-47	OFF
S1-48	OFF
S1-60	OFF
S1-61	0.3
S1-62	4.8
S1-63	1.9
S1-64	1.3
Total	**51.2**
Average*	**3.0**

* of metered wells

S1 Injection Wells (11)

Well ID	gpm
S1-49	OFF
S1-50	OFF
S1-51	OFF
S1-52	OFF
S1-53	OFF
S1-54	5.7
S1-55	2.3
S1-56	OFF
S1-57	OFF
S1-58	OFF
S1-59	3.0
S1-65	6.0
S1-66	4.0
S1-67	5.0
S1-68	6.4
S1-69	3.5
S1-70	3.3
S1-101	4.3
S1-133	5.9
Total	**49.5**
Average	**4.5**

Wells S1-58, 59, 65, 66, 67, 68, 69, and 70 receive oxygen- and nutrient-amended injection water

Subtotal	41.5

All other S1 wells receive oxygenated injection water only

Notes
OFF - well inoperative
NM - well running but not metered
PP - well in pulse pumping mode

INT Production Wells (48)

Well ID	gpm
INT-1	1.3
INT-2	0.9
INT-3	0.2
INT-4	0.2
INT-5	1.6
INT-6	1.4
INT-7	0.2
INT-8	1.5
INT-9	1.3
INT-10	3.6
INT-11	0.4
INT-12	1.4
INT-13	0.4
INT-14	0.2
INT-15	OFF
INT-16	OFF
INT-17	OFF
INT-18	0.5
INT-19	0.3
INT-20	0.2
INT-21	0.6
INT-22	0.3
INT-23	0.1
INT-24	0.5
INT-25	OFF
INT-26	0.5
INT-27	1.4
INT-28	0.4
INT-29	OFF
INT-30	OFF
INT-31	OFF
INT-32	OFF
INT-33	OFF
INT-55	2.5
INT-56	0.6
INT-57	1.6
INT-58	3.4
INT-59	0.3
INT-60	2.0
INT-61	1.4
INT-62	1.0
INT-65	0.9
INT-66	0.7
INT-143	0.3
INT-205	1.2
INT-206	0.7
INT-207	0.8
INT-208	4.2
INT-209	0.3
INT-210	2.8
INT-211	OFF
INT-212	1.8
INT-213	2.5
INT-214	OFF
INT-215	2.8
INT-216	OFF
INT-217	5.3
INT-228	0.1
Total	**56.6**
Average	**1.2**

INT Injection Wells (31)

Well ID	gpm
INT-63	2.4
INT-64	3.5
INT-71	2.3
INT-72	1.4
INT-73	3.5
INT-74	1.8
INT-75	0.6
INT-76	3.2
INT-77	4.8
INT-78	3.9
INT-79	0.6
INT-80	0.9
INT-81	6.4
INT-82	0.6
INT-83	0.6
INT-84	1.3
INT-85	OFF
INT-86	OFF
INT-87	OFF
INT-88	OFF
INT-89	OFF
INT-90	OFF
INT-91	OFF
INT-92	OFF
INT-93	OFF
INT-94	OFF
INT-95	OFF
INT-96	OFF
INT-97	1.2
INT-98	1.6
INT-99	OFF
INT-100	OFF
INT-201	OFF
INT-202	0.8
INT-203	0.4
INT-204	1.8
INT-218	1.1
INT-219	1.1
INT-220	0.7
INT-221	0.6
INT-222	3.9
INT-223	1.3
INT-224	3.0
INT-225	3.6
INT-226	0.8
INT-227	0.8
Total	**60.9**
Average	**2.0**

All INT injection wells receive oxygen- and nutrient-amended injection water

Note: total and average flow rates for S1 and INT units are corrected (per main flow meter readings) for use in Table 4-1.

Table 4-5

Operational Monitoring - March 1995

Activity	Frequency	Purpose
Check production and injection wells for pump, meter, and level control operation, injection pressure, and gas buildup.	Daily	Identify and respond to individual well problems; maintain operating efficiency.
Flow meter readings	Weekly	Identify and respond to individual well problems; maintain operating efficiency.
Read groundwater treatment plant inflow and outflow meters; nutrient injection flow meters; oxygen flows, pressure and temperature; and injection header back pressure.	2x daily	Identify and respond to treatment plant problems; control nutrient and injection flow rates.
Measure T-101 influent TOC.	2x daily	Track TOC removal.
Measure dissolved oxygen at 6 representative S1 and INT injection wells.	Weekly	Control oxygen injection.
Sample T-101 influent for VOC, TOC, and nutrient analysis, (1) from all operating production wells, and (2) from all wells located outside the floodwall.	Monthly	Develop chemical mass balance.
Conduct water levels DO and TOC on 22 monitoring wells.	Weekly	Define progress of new INT wells and shut-off areas. Track DO breakthru.
Conduct water levels on shut-off wells.	Monthly	Track level recovery in shut-off wells.
Conduct TOC and DO on select production wells.	Weekly	Track TOC and DO levels in critical areas.

Figure 4-1

Production Flows

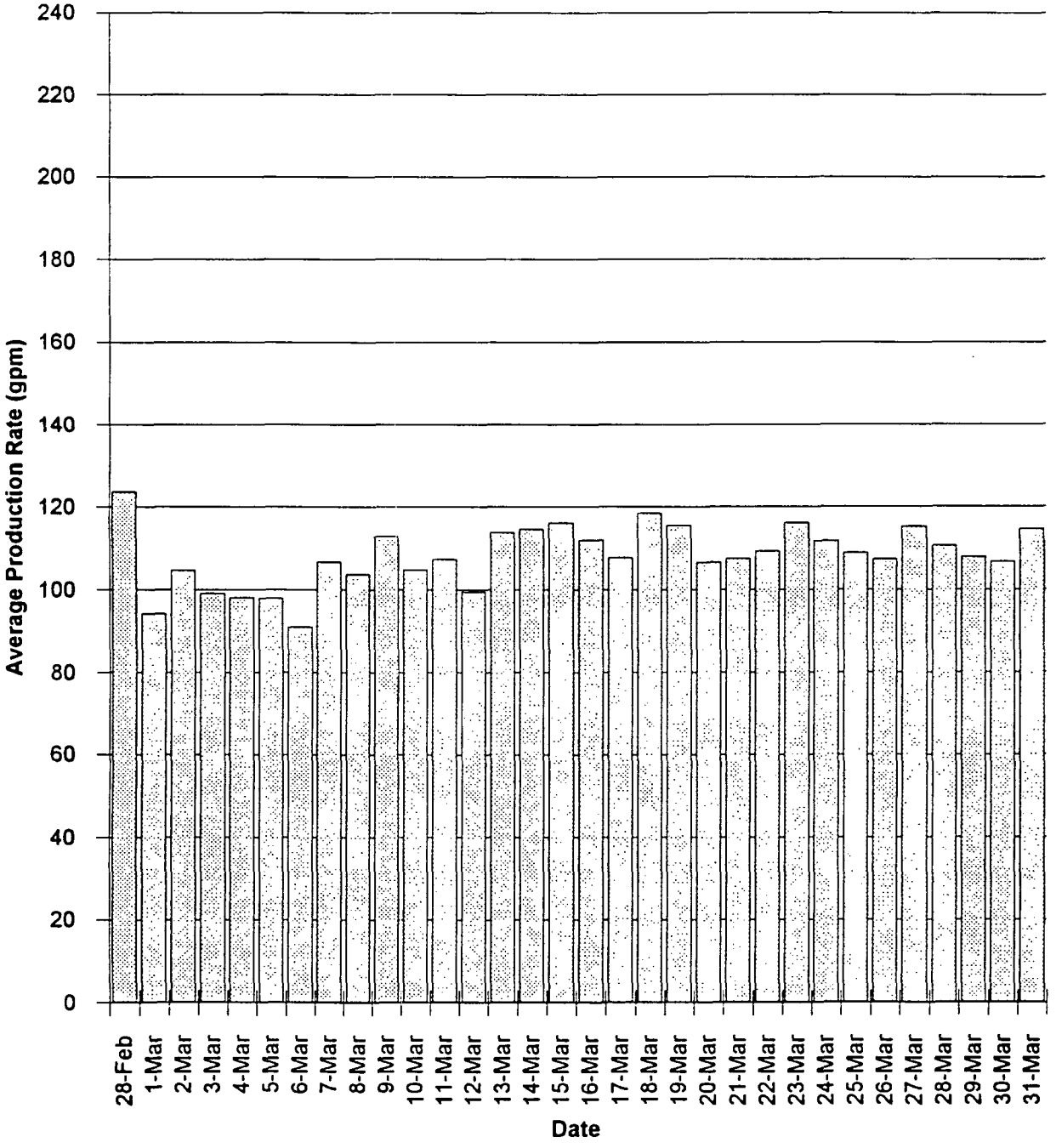


Figure 4-2

Injection Flows

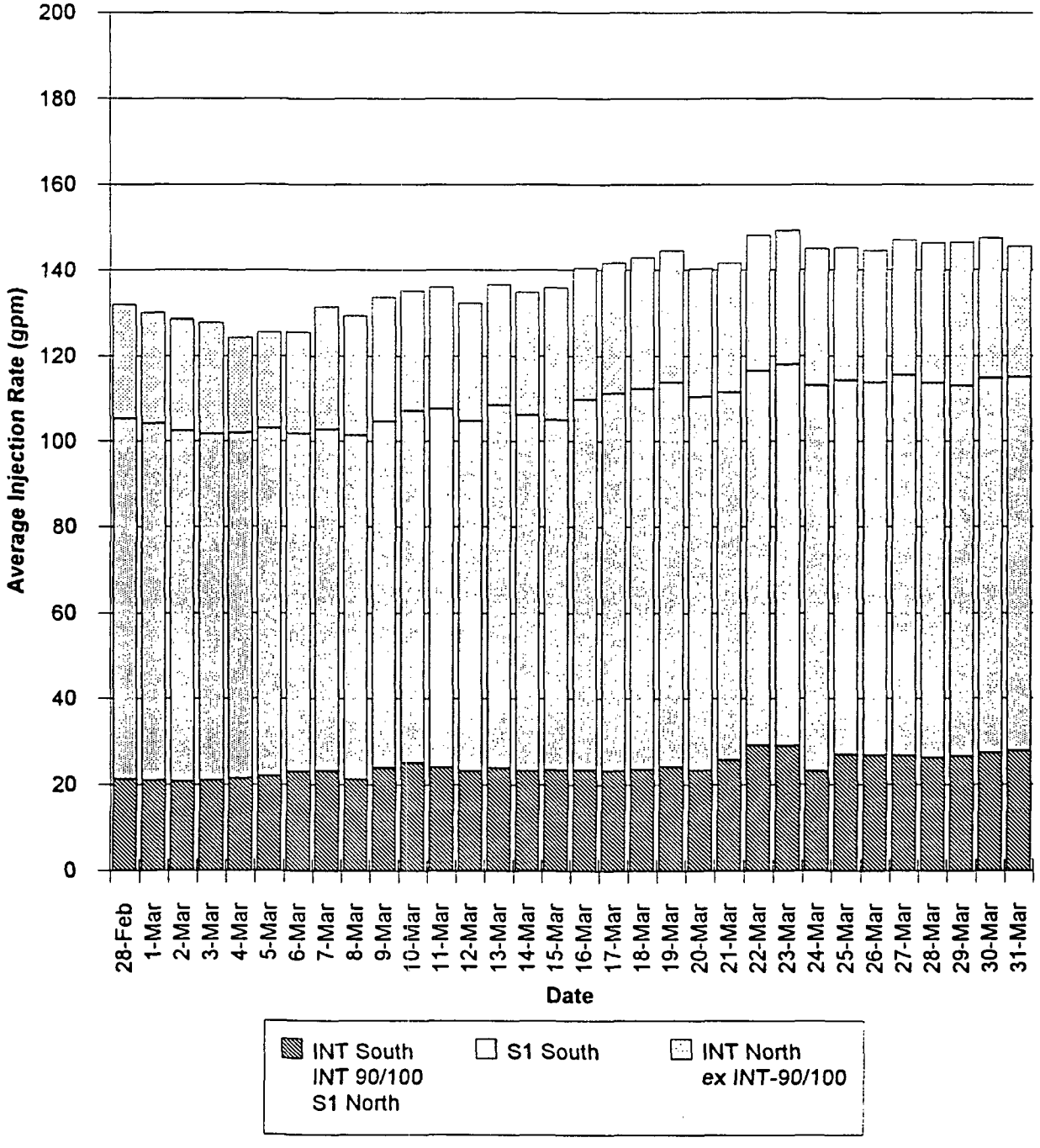


Figure 4-3

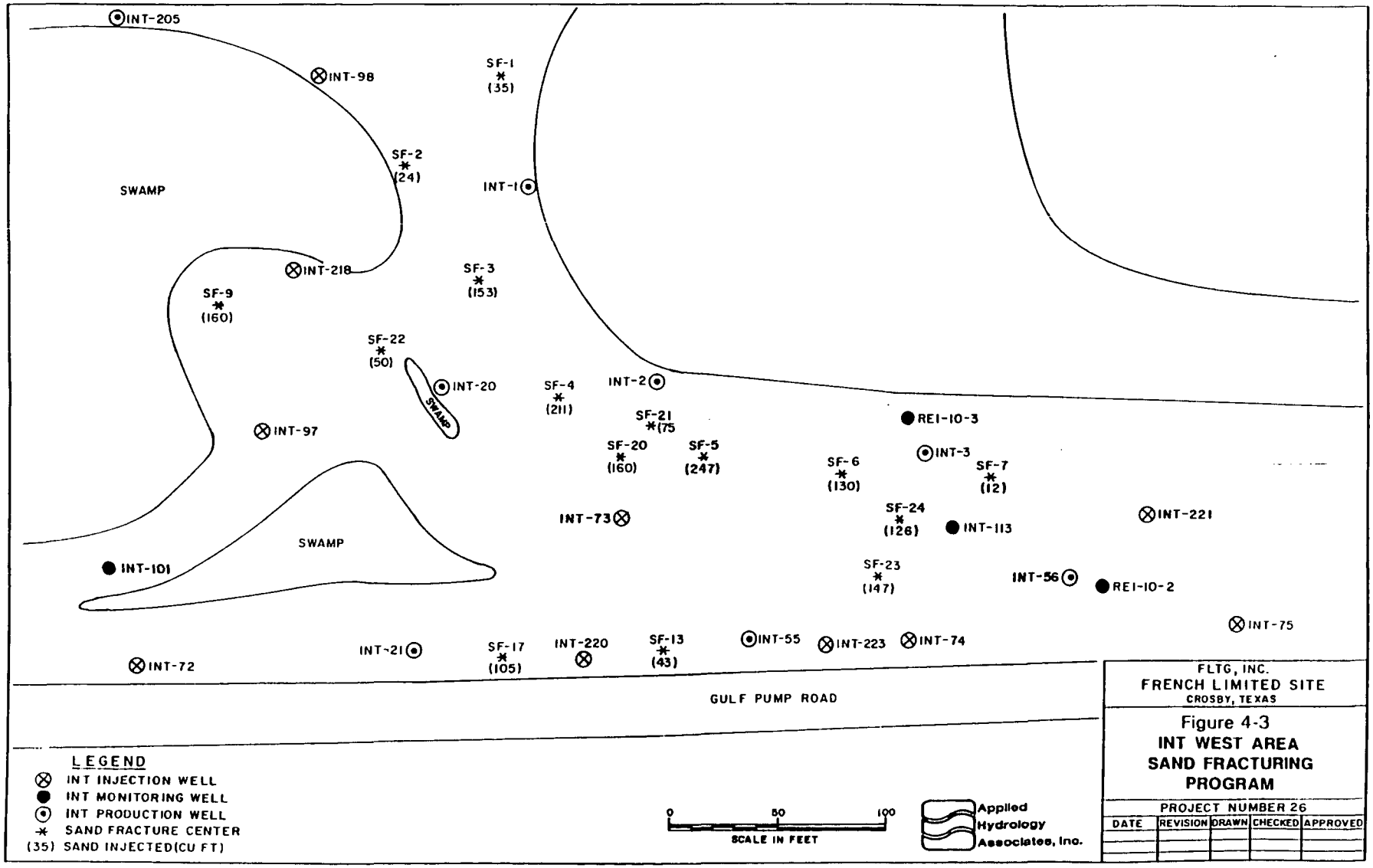

INT-205
INT-98
SF-1
(35)
SF-2
(24)
SWAMP
INT-1
INT-218
SF-3
(153)
SF-9
(160)
SF-22
(50)
INT-20
SF-4
(211)
INT-2
SWAMP
SF-21
(75
REI-10-3
INT-97
SF-20
(160)
SF-5
(247)
INT-3
SF-6
(130)
SF-7
(12)
INT-73
SF-24
(128)
INT-113
INT-221
SWAMP
INT-101
SF-23
(147)
INT-56
REI-10-2
INT-75
INT-72
INT-21
SF-17
(105)
INT-220
SF-13
(43)
INT-55
INT-223
INT-74
GULF PUMP ROAD
LEGEND
INT INJECTION WELL
INT MONITORING WELL
INT PRODUCTION WELL
SAND FRACTURE CENTER
(35) SAND INJECTED(CU FT)
0
50
100
SCALE IN FEET
Applied Hydrology Associates, Inc.
FLTG, INC.
FRENCH LIMITED SITE
CROSBY, TEXAS
Figure 4-3
INT WEST AREA
SAND FRACTURING
PROGRAM
PROJECT NUMBER 26
DATE
REVISION
DRAWN
CHECKED
APPROVED

Table 4-6

Sand-Fracture Area Injection and Pumping Rates

INT Injection				INT Pumping				
Well #	Pre sand fracture average (gpm)	Post sand fracture average (gpm)	Average After 60 Days	Well #	Pre sand fracture average (gpm)	Post sand fracture average (gpm)	Addition of vacuum enhancement post sand fracture (gpm)	Average after 60 days
72	0.77	1.29	1.37	1	1.15	1.41	1.71	1.48
73	0.35	3.66	3.81	2	0.68	1.25	1.75	.98
74	1.00	1.24	1.78	3	0.05	0.14	0.18	.19
75	1.00	0.58	.98	20	0.07	0.14	0.19	.19
97	0.89	1.44	1.31	21	0.31	0.37	0.57	.60
98	0.81	1.30	1.68	55	1.78	1.91		3.06
218	1.31	1.31	1.17	56	.29	.39		.73
220	1.80	0.85	.91					
221	0.60	0.78	.81					
223	0.78	1.16	1.40					
Pumping averages are actual (disregarding electrical maintenance down time).								
Added 55 and 56 to VEP - March 13, 1995.								

Figure 4-4

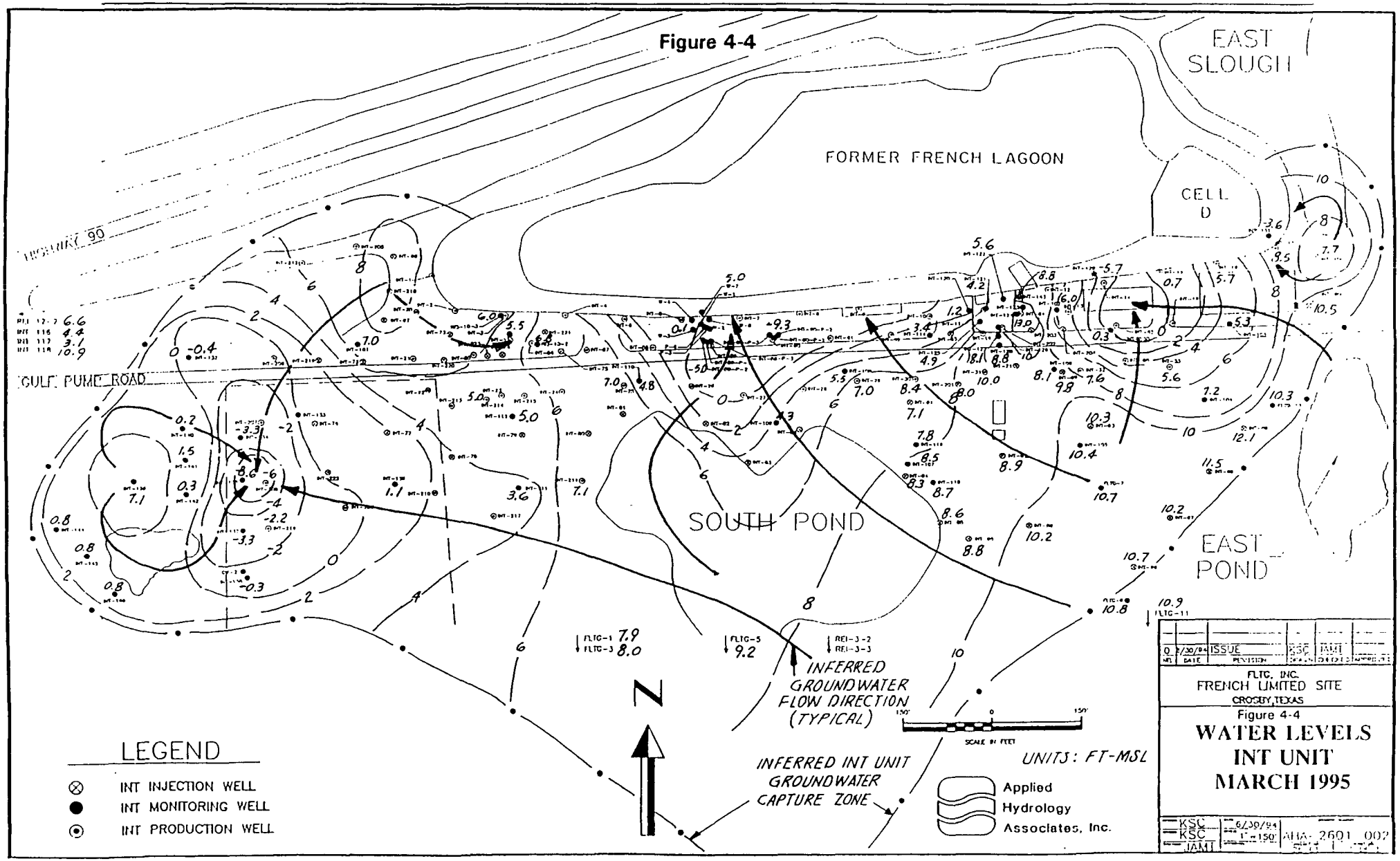
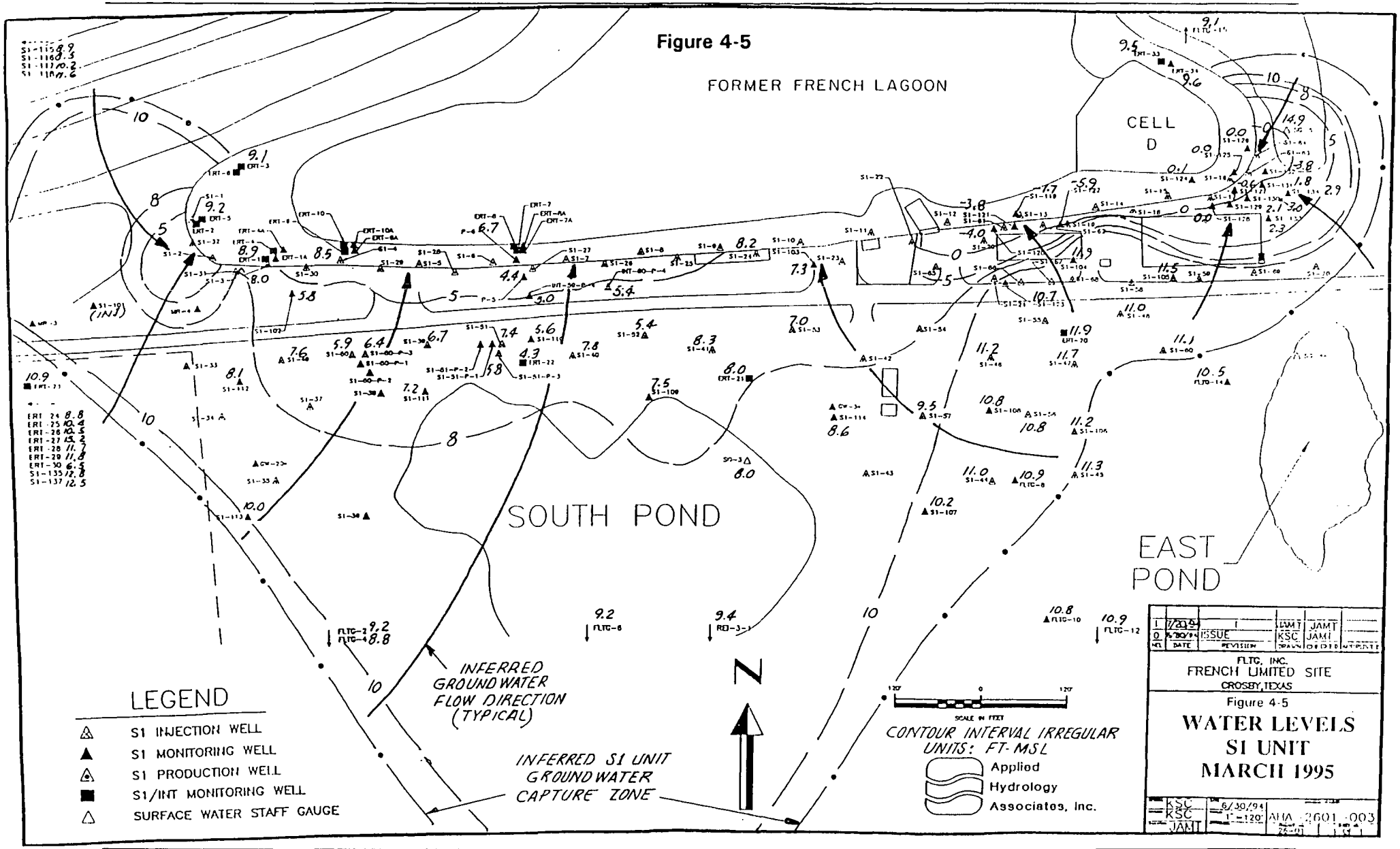

EAST SLOUGH
FORMER FRENCH LAGOON
CELL D
HIGHWAY 90
GULF FUME ROAD
SOUTH POND
EAST POND
INFERRED GROUNDWATER FLOW DIRECTION (TYPICAL)
INFERRED INT UNIT GROUNDWATER CAPTURE ZONE
UNITS: FT-MSL
LEGEND
INT INJECTION WELL
INT MONITORING WELL
INT PRODUCTION WELL
Applied Hydrology Associates, Inc.
FLTG, INC.
FRENCH LIMITED SITE
CROSBY, TEXAS
Figure 4-4
WATER LEVELS
INT UNIT
MARCH 1995

Figure 4-5


FORMER FRENCH LAGOON
CELL D
SOUTH POND
EAST POND
INFERRED GROUNDWATER FLOW DIRECTION (TYPICAL)
INFERRED S1 UNIT GROUNDWATER CAPTURE ZONE
N
LEGEND
S1 INJECTION WELL
S1 MONITORING WELL
S1 PRODUCTION WELL
S1/INT MONITORING WELL
SURFACE WATER STAFF GAUGE
CONTOUR INTERVAL IRREGULAR
UNITS: FT-MSL
Applied Hydrology Associates, Inc.
SCALE IN FEET
FLTG, INC.
FRENCH LIMITED SITE
CROSBY, TEXAS
Figure 4-5
WATER LEVELS
S1 UNIT
MARCH 1995
6/30/94
1"=120'
AHA 2601-003

4.3 Pending Issues

4.3.1 S1 Unit Pulse Pumping

No wells are on a pulse pump program this period.

4.4 Operational Refinements

A 60-day evaluation of the sand fracturing program at the near west end is included as Table 4-6.

4.5 Data Summary and Discussion

4.5.1 Groundwater Production and Injection

Groundwater production rates were adjusted to 100 gpm to compensate for the expanded shut-off. Injection rate target remains the same.

4.5.2 Groundwater Levels and Flow Directions

The current extent of contaminated groundwater is contained within the S1 and INT extraction system capture zones.

Water level contour maps are included as Figure 4-4 and Figure 4-5.

4.5.3 TOC in shallow groundwater

TOC analyses on production wells were completed the first week in March. The analyses are in Table 4-8 and Table 4-9. The overall average TOC level continues to drop.

4.5.4 In-Situ Bioremediation

Complimentary injection wells were shut off to balance production wells reaching criteria. The emphasis continues to be to maximize delivery of oxygen and nutrients to the INT system. Dissolved oxygen analysis was conducted on the monitoring wells during the third well volume pumped.

A work plan was developed for natural attenuation modeling and submitted to USEPA.

Three Biological Activity Monitors (BAM) were installed in each of 11 S1 monitoring wells and 14 INT monitoring wells during the first week of February. Coupons were incubated for 24-26 days and replaced for a second incubation period in March. The data for both sets of coupons are summarized in Table 4-7. The data were standardized to a 26 day incubation period for comparison. The mean activity for

the system has decreased slightly in both the S1 and INT zones. Variation between coupons in the same well, as shown by standard deviation, has also fallen slightly in both zones.

Figure 4-6 shows activity in the S1 zone during February and March. One standard deviation of the mean is shown on the bars. High activity was observed inside the flood wall in both February and March. Activity was also high outside the wall at the west end in March. Activity was intermediate in the central region and lowest in the eastern wells.

Activity in the INT zone during February and March is shown in Figure 4-7. Activity was fairly uniform throughout the zone during February but fell significantly in six (6) out of seven (7) wells in the eastern region in March. Inside the flood wall, activity increased in two (2) out of three (3) wells in March.

4.6 Schedule

Two new INT production wells are scheduled for completion in April, 1995.

Table 4-7

Biological Activity Monitor Results and Statistics

S1 MONITOR WELLS

LOCATIO	WELL NUMBER	FEB MEAN	STDS	MAR MEAN	STDS
INSIDE	ERT-9A	6.24	1.37	2.34	0.08
INSIDE	P-6	0.84	0.02	1.29	0.26
INSIDE	126	1.58	0.09	1.31	0.06
EAST	112	0.38	0.05	0.18	0.03
EAST	110	0.46	0.05	0.12	0.04
CENTRAL	121	0.66	0.02	0.64	0.03
CENTRAL	123	1.05	0.02	0.69	0.09
CENTRAL	106	0.46	0.08	0.71	0.00
CENTRAL	108	0.57	0.08	0.27	0.03
WEST	131	1.24	0.01	2.83	0.28
WEST	133	0.51	0.04	1.83	0.30
MEAN	MEAN	1.27	0.17	1.11	0.11

INT MONITOR WELLS

LOCATIO	WELL NUMBER	FEB MEAN	STDS	MAR MEAN	STDS
INSIDE	W-7	0.75	0.01	0.96	0.03
INSIDE	129	0.76	0.03	0.63	0.13
INSIDE	131	0.48	0.04	0.72	0.02
EAST	134	0.44	0.11	0.12	0.05
EAST	101	0.38	0.10	0.21	
EAST	REI-10-3	1.18	0.29	0.20	0.04
EAST	113	0.65	0.07	0.13	0.00
EAST	112	0.57	0.07	0.19	0.01
EAST	111	0.50	0.03	0.76	0.01
EAST	W-3	0.60	0.15	0.11	0.05
CENTRAL	108	0.54	0.00	0.41	0.05
CENTRAL	125				
CENTRAL	102	0.63	0.02	0.56	
CENTRAL	106	0.36	0.12	0.37	0.29
CENTRAL	105	0.27	0.06	0.68	0.05
MEAN	MEAN	0.58	0.08	0.43	0.06

Figure 4-6

Coupon HMB Values for S1 Zone

1995 BAM PROGRAM, FRENCH LTD. PROJECT

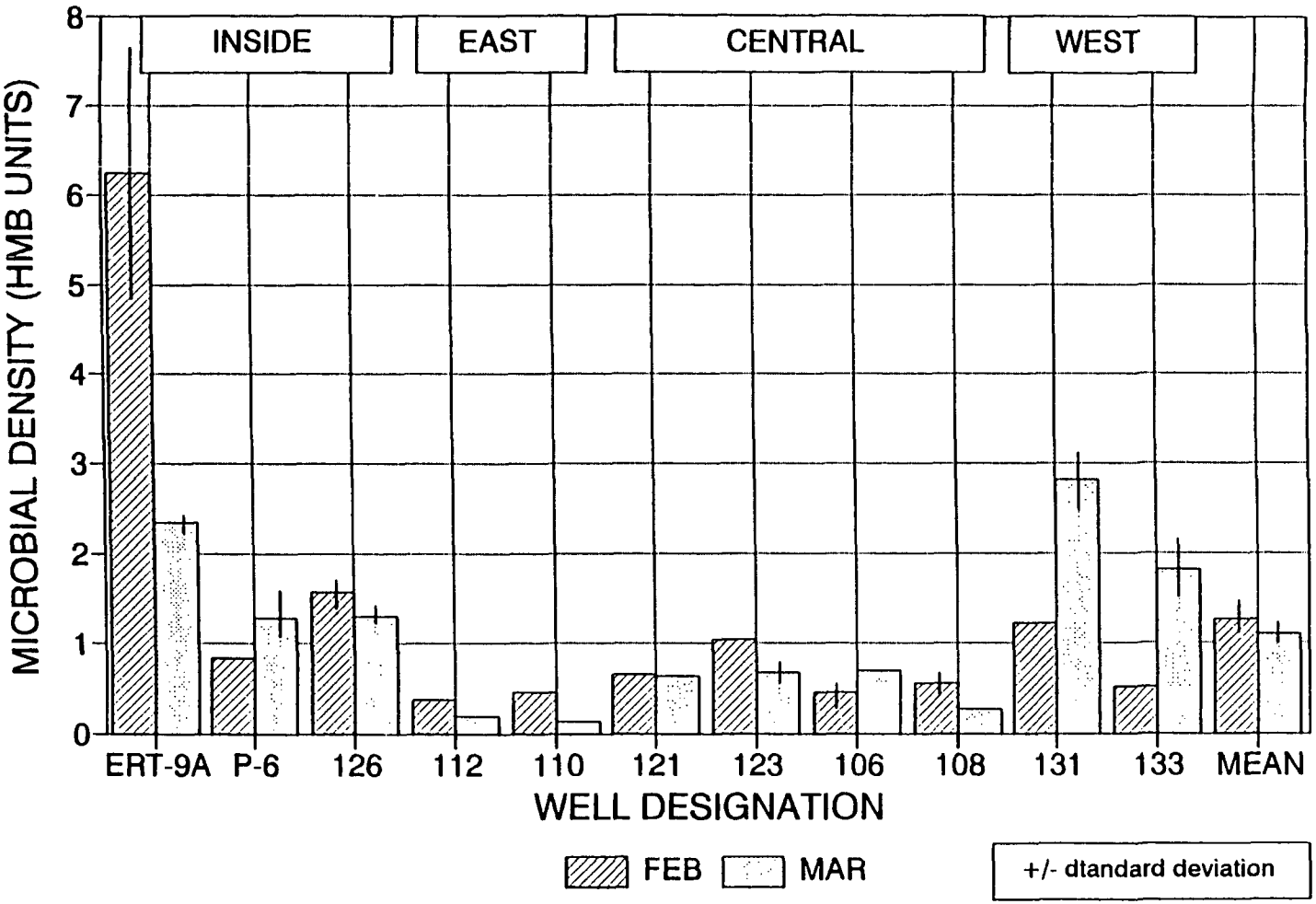


Figure 4-7

Coupon HMB Values for INT Zone

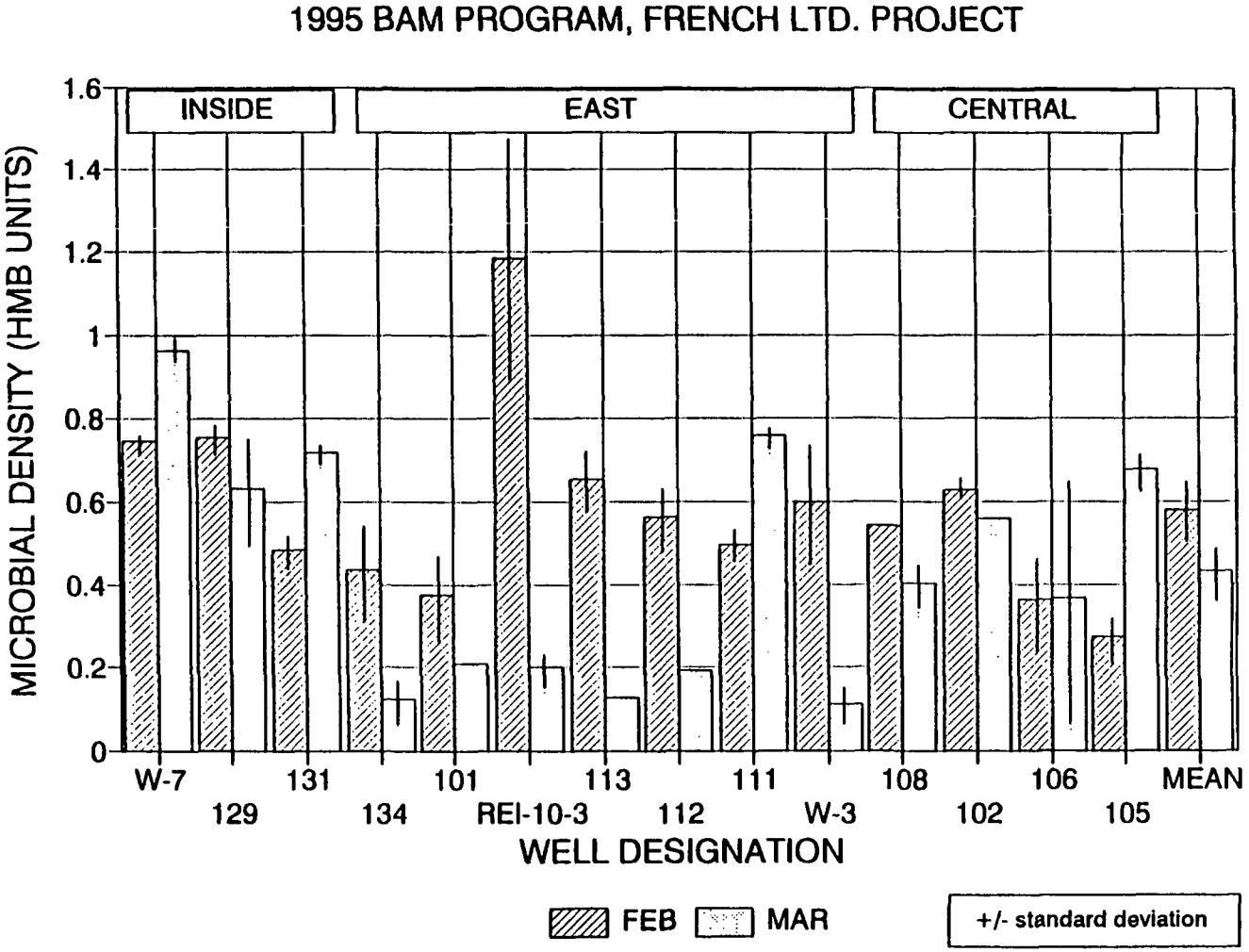


Table 4-8

History of TOC Concentrations at S1 Production Wells

HISTORY OF TOC CONCENTRATIONS AT S1 PRODUCTION WELLS

Well ID	Baseline Nov-Dec 91 (ppm)	Mar 1994 (ppm)	June 1994 (ppm)	Sep 1994 (ppm)	Nov 1994 (ppm)	Dec 1994 (ppm)	Jan 1995 (ppm)	Feb 1995 (ppm)	Mar 1995 (ppm)
S1-1	290	1,317	1,360	1,133	1,215	NS	1,592	NS	NS
S1-2	190	1,510	1,139	1,251	NS	NS	1,044	NS	NS
S1-3	370	1,037	755	566	750	NS	624	NS	NS
S1-4	47	1,025	668	620	576	NS	582	NS	NS
S1-5	51	1,151	473	NS	NS	NS	504	NS	NS
S1-6	51	1,315	892	928	NS	NS	774	NS	NS
S1-7	200	1,327	786	660	NS	NS	708	NS	NS
S1-8	64	1,516	1,110	935	909	NS	708	NS	NS
S1-9	77	2,085	1,589	567	NS	NS	1,520	NS	NS
S1-10	46	2,540	1,800	567	2,001	NS	2,205	1,860	448
S1-11	120	NS	1,751	2,510	1,825	NS	2,121	2,320	40
S1-12	140	2,129	1,445	2,355	1,086	NS	1,850	1,960	344
S1-13	520	990	722	1,077	960	NS	678	820	312
S1-14	590	1,616	1,443	1,440	1,000	NS	1,392	1,430	592
S1-15	5,300	2,778	2,280	2,583	1,450	NS	2,597	2,530	1488
S1-16	8,900	2,732	718	NS	1,744	NS	1,050	330	136
S1-17	6,800	344	180	141	92	NS	73	76	72
S1-18	2,200	44	34	49	45	NS	24	37	72
S1-19	20	33	28	39	22	NS	14	16	32
S1-20	120	141	50	60	43	NS	21	16	17
S1-21	65	17	8	42	11	NS	6	3	11
S1-22	290	4	19	64	31	NS	30	55	NS
S1-23	350	27	21	29	20	NS	13	12	NS
S1-24	250	16	18	42	17	NS	13	10	NS
S1-25	550	16	15	33	23	NS	13	13	NS
S1-26	540	22	18	49	16	NS	14	11	NS
S1-27	220	60	42	88	128	NS	25	31	NS
S1-28	370	12	15	21	18	NS	14	16	NS
S1-29	670	23	20	33	20	NS	16	11	NS
S1-30	370	78	31	86	28	NS	20	22	NS
S1-31	14	29	17	29	25	NS	12	11	NS
S1-32	18	85	49	73	40	NS	35	37	41
S1-33	10	16	NS	567	NS	NS	NS	NS	NS
S1-34	11	75	13	18	NS	NS	NS	NS	NS
S1-35	24	45	43	37	NS	NS	28	NS	NS
S1-36	200	44	27	39	NS	NS	NS	NS	NS
S1-37	13	55	9	36	NS	NS	NS	NS	NS
S1-38	59	6	NS	22	NS	NS	NS	NS	NS
S1-39	290	22	11	17	NS	NS	10	12	NS
S1-40	150	33	15	17	18	NS	18	21	NS
S1-41	170	12	11	16	NS	NS	10	16	NS
S1-42	88	37	NS	22	NS	NS	NS	NS	NS
S1-43	4	NS	NS	14	NS	NS	NS	NS	NS
S1-44	280	44	21	28	NS	NS	9	19	NS
S1-45	4,400	30	NS	24	NS	NS	10	32	NS
S1-46	480	10	NS	24	10	NS	4	11	NS
S1-47	1,200	61	NS	31	NS	NS	24	28	NS
S1-48	1,200	31	NS	22	NS	NS	15	22	NS
S1-60	48	15	NS	17	NS	NS	8	14	NS
S1-61	NS	NS	758	366	152	NS	78	116	108
S1-62	NS	NS	125	27	18	NS	20	14	11
S1-63	NS	NS	264	241	150	NS	155	120	70
S1-64	NS	NS	512	66	55	NS	44	50	43

NS = Not Sampled

Table 4-9

History of TOC Concentrations at INT Production Wells

HISTORY OF TOC CONCENTRATIONS AT INT PRODUCTION WELLS

Well ID	Baseline Nov-Dec 91 (ppm)	Mar 1994 (ppm)	June 1994 (ppm)	Sep 1994 (ppm)	Nov 1994 (ppm)	Dec 1994 (ppm)	Jan 1995 (ppm)	Feb 1995 (ppm)	Mar 1995 (ppm)
INT-1	3,600	800	374	320	253	NS	204	270	273
INT-2	1,800	290	339	281	214	NS	91	492	563
INT-3	5,200	1,188	1,260	932	1,550	NS	1,016	940	624
INT-4	610	1,300	541	430	NS	NS	198	180	209
INT-5	960	205	101	103	90	NS	76	70	45
INT-6	280	510	200	195	100	NS	76	72	46
INT-7	100	99	140	101	38	NS	120	123	NS
INT-8	75	84	60	64	43	NS	47	45	NS
INT-9	800	142	77	70	NS	NS	68	58	NS
INT-10	1,900	112	62	82	135	NS	45	45	20
INT-11	590	NS	44	113	31	NS	31	27	29
INT-12	3,300	106	105	74	23	NS	32	16	31
INT-13	590	63	89	50	23	NS	34	12	NS
INT-14	24	112	NS	119	53	NS	39	50	54
INT-15	19	20	19	47	18	NS	17	16	NS
INT-16	2,000	15	11	68	9	NS	6	11	NS
INT-17	7	13	NS	19	14	NS	8	14	NS
INT-18	4	162	73	57	29	NS	24	20	31
INT-19	1,400	55	36	38	39	NS	56	49	NS
INT-20	3,500	2,525	1,922	1,182	NS	NS	1,480	1,476	1425
INT-21	29	240	214	190	NS	NS	204	132	540
INT-22	8	55	44	95	NS	NS	117	135	199
INT-23	16	40	50	112	NS	NS	35	40	30
INT-24	240	136	89	84	65	NS	58	56	NS
INT-25	36	65	24	29	NS	NS	20	18	NS
INT-26	120	152	38	122	123	NS	110	108	NS
INT-27	180	116	85	79	80	NS	65	75	NS
INT-28	630	48	34	37	23	NS	22	26	NS
INT-29	1,100	104	65	76	58	NS	35	40	NS
INT-30	1,400	32	32	45	24	NS	27	20	NS
INT-31	70	52	25	82	30	NS	20	19	NS
INT-32	880	16	24	22	11	NS	12	16	NS
INT-33	120	255	47	20	17	NS	10	9	NS
INT-55	NS	115	98	122	61	NS	65	48	NS
INT-56	NS	925	435	297	146	NS	132	120	NS
INT-57	NS	40	61	66	51	NS	75	68	NS
INT-58	NS	76	46	34	33	NS	28	29	NS
INT-59	NS	115	77	79	49	NS	50	42	NS
INT-60	NS	195	118	110	85	NS	86	80	NS
INT-61	NS	95	48	39	40	NS	31	31	NS
INT-62	NS	100	38	35	43	NS	29	20	NS
INT-65	NS	NS	65	66	61	NS	51	41	NS
INT-66	NS	175	113	120	94	NS	94	85	NS
INT-205	NS	120	39	61	39	NS	34	34	NS
INT-206	NS	44	53	107	86	NS	68	60	NS
INT-207	NS	56	52	45	60	NS	74	92	95
INT-208	NS	20	38	22	16	NS	11	18	NS
INT-209	NS	52	43	37	19	NS	13	17	NS
INT-210	NS	24	22	27	28	NS	23	26	NS
INT-211	NS	88	57	43	46	NS	29	41	NS
INT-212	NS	NS	36	27	38	NS	41	38	NS
INT-213	NS	NS	36	83	70	NS	91	143	NS
INT-214	NS	NS	35	46	31	NS	22	26	NS
INT-215	NS	NS	170	82	82	NS	56	67	NS
INT-216	NS	NS	22	34	28	NS	26	34	NS
INT-217	NS	NS	62	66	61	NS	60	62	NS
NS = Not Sampled									
Averages									
S1	784	565	484	387	439	NS	451	336	226
INT	957	236	148	125	89	NS	100	105	263

Table 4-10

Dissolved Oxygen at Production Wells

Well	9/1/94	11/23/94	1/1/95	3/26/95
S1-1	2.1	0.8	1.6	NM
S1-2	1.7	1.6	1.1	NM
S1-3	1.8	1.0	1.1	NM
S1-4	2.0	0.8	0.9	NM
S1-5	NM	NM	1.6	NM
S1-6	1.6	NM	0.8	NM
S1-7	1.3	NM	1.2	NM
S1-8	1.1	0.7	0.8	NM
S1-9	0.8	NM	1.5	NM
S1-10	0.6	0.5	1.0	NM
S1-11	1.1	0.9	1.4	NM
S1-12	1.1	1.3	1.5	NM
S1-13	1.7	1.3	1.5	NM
S1-14	1.1	0.4	0.8	NM
S1-15	1.4	0.7	0.7	NM
S1-16	NM	1.2	2.9	NM
S1-17	1.2	0.8	1.4	NM
S1-18	2.4	1.4	2.2	NM
S1-19	3.4	3.9	6.6	NM
S1-20	1.6	1.7	3.2	NM
S1-21	15+	15+	15+	NM
S1-22	1.5	0.7	1.6	NM
S1-23	1.9	1.5	4.8	NM
S1-24	0.9	2.6	1.8	NM
S1-25	0.8	0.8	1.4	NM
S1-26	2.2	0.7	1.1	NM
S1-27	1.4	1.9	2.0	NM
S1-28	1.2	1.2	1.7	NM
S1-29	1.9	2.2	4.4	NM
S1-30	1.5	1.1	4.2	NM
S1-31	1.8	1.6	1.2	NM
S1-32	1.4	1.5	1.6	0.6
S1-33	1.4	NM	NM	NM
S1-34	1.2	NM	NM	NM
S1-35	1.7	NM	1.5	NM
S1-36	0.9	NM	NM	NM
S1-37	1.3	NM	NM	NM
S1-38	15+	NM	NM	NM
S1-39	1.3	2.9	3.2	NM
S1-40	2.2	1.0	2.0	NM
S1-41	1.0	1.0	1.4	NM
S1-42	14.0	NM	NM	NM
S1-43	2.2	NM	NM	NM
S1-44	1.8	6.0	1.8	NM
S1-45	2.9	2.3	5.1	NM
S1-46	13.5	15+	15+	NM
S1-47	9.6	8.7	5.4	NM
S1-48	5.3	4.2	5.0	NM
S1-60	6.1	4.4	5.6	NM
S1-61	1.1	0.8	1.2	0.8
S1-62	1.4	2.8	12.6	NM
S1-63	2.2	0.9	4.0	0.9
S1-64	2.4	1.8	4.1	0.9

Table 4-10 (Continued)

Dissolved Oxygen at Production Wells

Well	9/1/94	11/23/94	1/1/95	3/26/95
INT-1	1.1	1.4	3.0	1.0
INT-2	1.5	0.8	0.8	0.4
INT-3	1.0	1.0	1.4	0.4
INT-4	0.9	1.1	1.2	0.5
INT-5	2.3	1.1	1.0	1.0
INT-6	0.7	1.3	1.4	1.0
INT-7	1.5	1.0	0.6	NM
INT-8	1.8	1.0	1.9	NM
INT-9	1.2	NM	1.4	NM
INT-10	1.9	1.4	1.7	0.8
INT-11	1.1	2.2	3.4	3.3
INT-12	2.2	13.8	13.8	15 +
INT-13	0.9	7.8	1.6	NM
INT-14	1.8	1.7	1.7	0.7
INT-15	1.4	1.6	2.0	NM
INT-16	2.1	3.0	1.8	NM
INT-17	2.9	2.2	2.6	NM
INT-18	1.8	1.2	1.5	NM
INT-19	2.4	1.4	1.1	NM
INT-20	1.3	0.9	1.2	0.5
INT-21	1.7	2.6	3.0	0.6
INT-22	0.8	1.0	1.1	0.6
INT-23	1.1	2.4	2.3	NM
INT-24	1.8	2.0	2.6	NM
INT-25	12.5	15+	10.2	NM
INT-26	1.4	1.6	2.3	NM
INT-27	1.6	1.2	1.4	NM
INT-28	5.2	7.4	4.6	NM
INT-29	5.2	4.0	4.4	NM
INT-30	9.5	9.4	1.8	NM
INT-31	1.4	4.1	5.3	NM
INT-32	15+	15+	15+	NM
INT-33	2.5	1.9	2.5	NM
INT-55	3.4	2.0	2.2	NM
INT-56	1.2	1.5	1.6	NM
INT-57	6.2	2.8	3.1	NM
INT-58	1.9	1.9	1.6	NM
INT-59	2.2	2.4	3.0	NM
INT-60	1.8	1.9	2.4	NM
INT-61	2.7	1.8	2.6	NM
INT-62	1.0	2.1	2.6	NM
INT-65	2.1	1.0	1.2	NM
INT-66	2.2	1.0	3.1	NM
INT-205	1.8	1.8	2.8	NM
INT-206	1.1	2.4	1.2	NM
INT-207	4.6	1.0	1.2	NM
INT-208	1.3	3.4	11.8	NM
INT-209	2.8	15+	14.8	NM
INT-210	15+	15+	15+	NM
INT-211	1.9	2.0	2.0	NM
INT-212	1.6	2.2	1.8	NM
INT-213	1.2	1.2	2.0	NM
INT-214	3.8	4.6	2.8	NM

Table 4-10 (Continued)

Dissolved Oxygen at Production Wells

Well	9/1/94	11/23/94	1/1/95	3/26/95
INT-215	5.2	3.6	3.0	NM
INT-216	3.4	4.2	2.7	NM
INT-217	1.6	1.2	1.8	NM

Table 4-11

Dissolved Oxygen at Monitoring Wells

	3/4/94	6/1/94	9/2/94	12/15/94	2/7/95	3/25/95
ERT-1	1.0	0.8	0.2	1.2	NM	NM
ERT-3	1.0	1.0	0.2	1.8	NM	NM
ERT-7	1.0	0.8	0.2	NM	NM	NM
ERT-8	1.0	0.6	0.2	2.2	NM	NM
ERT-9	1.0	1.3	0.4	NM	NM	NM
ERT-23	1.8	0.8	NM	0.7	NM	NM
ERT-24	0.8	NM	NM	2.0	NM	NM
ERT-25	1.8	1.0	NM	1.6	NM	NM
ERT-26	0.8	NM	NM	2.3	NM	NM
ERT-27	1.9	NM	NM	NM	NM	NM
ERT-28	6.4	NM	NM	4.8	NM	NM
ERT-29	1.2	NM	NM	NM	NM	NM
ERT-30	7.5	NM	NM	NM	NM	NM
ERT-33	1.1	0.4	NM	1.1	NM	NM
ERT-34	0.9	0.6	NM	NM	NM	NM
FLTG-1	0.8	0.3	NM	3.6	NM	NM
FLTG-2	1.0	1.2	NM	NM	NM	NM
FLTG-3	1.3	0.8	NM	NM	NM	NM
FLTG-4	1.0	0.6	NM	NM	NM	NM
FLTG-5	0.8	0.4	NM	3.0	NM	NM
FLTG-6	1.2	1.6	NM	NM	NM	NM
FLTG-7	1.6	0.6	0.8	2.0	0.4	0.2
FLTG-8	1.7	0.8	0.4	2.5	0.4	NM
FLTG-9	1.2	11.4	15+	NM	15+	NM
FLTG-10	1.1	2.2	2.6	3.2	1.2	NM
FLTG-11	0.6	0.6	0.5	NM	NM	NM
FLTG-12	0.8	1.8	0.6	NM	NM	NM
FLTG-13	0.3	0.8	0.4	2.6	1.3	NM
FLTG-14	0.6	0.8	0.4	2.4	0.2	NM
FLTG-15	0.8	1.2	NM	2.4	NM	NM
INT-59-P1	1.6	0.5	0.6	NM	1.2	NM
INT-59-P4	1.4	0.9	0.6	NM	0.6	NM
INT-60-P1	1.7	1.0	0.4	NM	0.2	NM
INT-60-P4	1.4	0.8	0.4	NM	0.5	NM
INT-101	1.0	0.4	0.2	2.6	0.3	0.2
INT-102	0.6	0.6	NM	15.0	15+	14.9
INT-103	2.2	0.7	0.1	1.3	0.2	NM
INT-104	2.3	4.8	0.3	4.6	3.2	NM
INT-105	1.2	0.7	0.4	4.6	0.4	NM

Table 4-11 (Continued)

Dissolved Oxygen at Monitoring Wells

	3/4/94	6/1/94	9/2/94	12/15/94	2/7/95	3/25/95
INT-106	15+	15+	15+	15.0	4.7	NM
INT-107	15+	15+	15+	15.0	15+	NM
INT-108	1.1	0.2	0.2	2.1	1.7	0.2
INT-109	1.6	0.8	0.5	2.2	0.2	NM
INT-110	1.6	0.9	0.8	0.8	0.4	NM
INT-111	1.2	1.4	2.0	2.8	1.4	NM
INT-112	15+	15+	15+	15.0	15+	15+
INT-113	0.9	15+	15+	10.3	2.0	NM
INT-114	1.6	0.8	0.4	1.5	0.2	NM
INT-115	1.2	1.0	0.8	4.6	0.7	NM
INT-116	2.4	3.8	NM	2.4	NM	NM
INT-117	2.7	2.8	NM	3.1	NM	NM
INT-118	4.8	2.2	NM	2.0	NM	NM
INT-119	1.1	0.7	1.1	1.1	0.3	NM
INT-132	2.0	1.8	0.4	3.6	0.7	NM
INT-133	0.8	1.2	0.5	1.9	0.6	NM
INT-134	0.6	0.6	0.6	1.8	0.6	NM
INT-135	0.6	0.8	0.6	6.8	0.7	0.2
INT-137	1.0	1.8	0.8	3.1	2.4	NM
INT-138	0.8	0.8	0.4	2.3	0.6	NM
INT-139	0.6	0.8	0.9	1.1	0.5	NM
P-5	1.0	0.4	0.1	0.6	0.2	NM
P-6	1.0	0.6	0.3	NM	NM	NM
REI-10-2	1.2	0.8	0.4	1.1	0.2	NM
REI-10-3	0.6	0.8	0.3	0.8	0.3	NM
REI-12-2	0.8	2.0	NM	2.4	NM	NM
S1-101	1.1	0.8	0.2	0.8	0.2	NM
S1-102	1.6	0.6	0.4	0.5	0.2	0.3
S1-103	0.8	6.6	2.3	1.2	0.2	NM
S1-104	1.6	0.8	1.8	3.9	15+	NM
S1-105	15+	15+	0.2	1.4	6.8	NM
S1-106	0.8	0.8	0.4	0.6	0.1	0.2
S1-107	5.4	15+	15+	15.0	15+	NM
S1-108	1.6	0.0	0.6	15.0	15+	NM
S1-109	8.4	15+	15+	5.2	15+	NM
S1-110	1.3	1.4	0.6	0.6	0.2	NM
S1-111	2.0	0.8	15+	15.0	15+	NM
S1-112	0.6	1.4	0.7	2.4	0.2	NM
S1-113	1.8	0.8	0.4	2.7	0.5	0.3

Table 4-11 (Continued)

Dissolved Oxygen at Monitoring Wells

	3/4/94	6/1/94	9/2/94	12/15/94	2/7/95	3/25/95
S1-114	0.8	1.2	0.4	1.5	0.4	NM
S1-115	1.8	1.6	NM	3.2	NM	NM
S1-116	0.8	0.7	NM	2.1	NM	NM
S1-117	2.0	2.3	NM	2.9	NM	NM
S1-118	1.6	0.6	NM	3.4	NM	NM
S1-135	1.2	1.3	0.2	0.8	NM	NM
S1-137	1.0	1.0	0.8	1.0	NM	NM
S1-50-P1	15+	1.7	15+	NM	NM	NM
S1-50-P3	15+	15+	11.6	NM	1.6	NM
S1-51-P1	1.0	1.3	15+	NM	NM	NM
S1-51-P3	1.5	0.8	0.6	NM	0.3	NM
S2-101	NM	NM	NM	3.8	NM	NM
SG-1	NM	NM	NM	NM	NM	NM
SG-2	NM	NM	NM	NM	NM	NM
SG-3	NM	NM	NM	NM	NM	NM
SG-4	NM	NM	NM	NM	NM	NM
SG-5	NM	NM	NM	NM	NM	NM
W-3	1.1	0.2	0.5	1.8	0.2	NM
W-4	1.4	0.4	0.5	NM	NM	NM
W-5	1.6	0.2	0.4	NM	NM	NM
W-7	0.8	1.0	0.3	2.6	NM	NM

5.0 GROUNDWATER TREATMENT PLANT

5.1 Summary of Activities

Operation concentrated on reducing the total pounds of chlorinated hydrocarbons discharged to the river. The efforts were successful as evidenced by the treated water summary in Table 5-2, as the last available results reveal 166 ppb average by the end of the reporting period.

Sludge volumes have returned to optimum operating parameters and there have been no total suspended solids excursion in this period.

There have been no carbon transfers since December 14, 1994, as the TOC levels still remain low and influent flow rates have leveled off at approximately 110 gal/min.

There have been no major mechanical repairs in March.

Total flows for March, 1995:

Water discharged to the San Jacinto River - 5,091,700 gallons

Water discharged to the Lagoon - 0

Sludge discharged to the Lagoon - 6,700 gallons

Water processed through the GWT - 4,812,400 gallons

Water discharged to the South Pond - 0

Water blended passed Carbon Filter - 4,094,000 gallons

Water processed from Cell D to GWT plant: metered - 0

Cell D injection at S1-1 through S1-9: metered - 124,700 gallons

5.2 Inoculum/Nutrient Addition

The following have been introduced into the bioreactors/clarifier:

Nutrients:

330 gallons Diammonium Phosphate

Microbes:

24 oz. French Limited Isolated Microbes

Coagulant:

~ 6.0 gallons Percol 778 Cationic Polymer

5.3 Maintenance

Table 5-1 lists the preventive maintenance items performed in March.

5.4 Operating Data

Table 5-2 summarizes the laboratory analysis of the treated water discharged to the San Jacinto River.

TABLE 5-1

Preventive Maintenance

Day	Action
March 6-7	Completed safety inspection of all electrical tools, extension cords, and all electrical office equipment.
March 9	Lubed pumps in GWT area.
March 10	Lubed rollers at the west gate.
March 14	Dewatered slab at GWT plant.
March 23	Checked belt tension and lubed blowers 1 & 3.
March 24	Lubed all valves in GWT plant.
March 28	Checked belt tension and lubed blower #2.
March 31	Exercised all valves in GWT. Lubed all "red" valves. Lubed electrical gate and chemical storage gate.

TABLE 5-2
Treated Water Results Summary

Collected	Set No.	pH (6-9)		TSS 5 PPM		TOC 55 PPM		O&G 15 PPM		Benzene 150 PPB		Chlor HC's 500 PPB		Total PCBs 0.65 PPB		Napthalene 300 PPB	
		Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg
1-Dec-94	M03A0287	7.4		1.		34.8		2.5		6.		526.		.16		5.	
5-Dec-94	M03A0288	7.57		1.		28.5		2.5		6.		305.		.16		5.	
8-Dec-94	M03A0289	7.52		1.		40.6		2.5		6.		480.		.16		5.	
12-Dec-94	M03A0290	7.43		4.		33.		2.5		6.		342.		.16		5.	
15-Dec-94	M03A0291	8.13		.5		23.		2.5		8.		145.		.16		5.	
19-Dec-94	M03A0292	7.96		1.		29.3		2.5		2.5		75.		.16		5.	
22-Dec-94	M03A0293	7.91		4.		17.8		2.5		2.5		170.		.16		5.	
26-Dec-94	M03A0294	7.68		10.		41.8		2.5		6.		353.		.16		5.	
29-Dec-94	M03A0295	7.79	7.7	1.	2.6	15.4	29.4	2.5	2.5	2.5	4.8	205.	289	.16	.16	5.	5.
2-Jan-95	M03A0296	7.78	7.8	4.	2.9	12.9	26.9	2.5	2.5	5.	4.7	275.	261	.16	.16	5.	5.
5-Jan-95	M03A0297	7.81	7.8	5.	3.4	19.	25.9	2.5	2.5	6.	4.7	249.	255	.16	.16	5.	5.
9-Jan-95	M03A0298	7.8	7.8	7.	4.1	9.8	22.4	2.5	2.5	2.5	4.3	124.	215	.16	.16	5.	5.
12-Jan-95	M03A0299	7.77	7.8	2.	3.8	9.8	19.9	2.5	2.5	2.5	3.9	200.	200	.16	.16	5.	5.
16-Jan-95	M03A0300	7.61	7.8	4.	4.2	18.3	19.3	2.5	2.5	6.	3.9	393.	227	.16	.16	5.	5.
19-Jan-95	M03A0301	7.44	7.7	2.	4.3	19.8	18.3	2.5	2.5	5.	4.2	454.	269	.16	.16	5.	5.
23-Jan-95	M03A0302	7.82	7.7	9.	4.9	35.5	20.3	2.5	2.5	6.	4.6	192.	272	.16	.16	5.	5.
26-Jan-95	M03A0303	7.66	7.7	.5	3.8	20.5	17.9	2.5	2.5	6.	4.6	234.	258	.16	.16	5.	5.
30-Jan-95	M03A0304	7.15	7.6	4.	4.2	44.3	21.1	2.5	2.5	25.	7.1	2326.	494	.16	.16	5.	5.
2-Feb-95	M03A0305	7.28	7.6	.5	3.8	11.7	21.	2.5	2.5	6.	7.2	613.	532	.16	.16	5.	5.
6-Feb-95	M03A0306	7.55	7.6	1.	3.3	11.7	20.2	2.5	2.5	5.	7.1	411.	550	.16	.16	5.	5.
9-Feb-95	M03A0307	7.52	7.5	5.	3.1	8.8	20.	2.5	2.5	5.	7.4	226.	561	.16	.16	5.	5.
13-Feb-95	M03A0308	7.5	7.5	22.	5.3	9.7	20.	2.5	2.5	5.	7.7	349.	578	.16	.16	5.	5.
16-Feb-95	M03A0309	7.33	7.5	.5	4.9	5.2	18.6	2.5	2.5	5.	7.6	276.	565	.16	.16	5.	5.
20-Feb-95	M03A0310	7.37	7.5	6.	5.4	5.8	17.	2.5	2.5	4.	7.4	193.	536	.16	.16	5.	5.
23-Feb-95	M03A0311	7.29	7.4	1.	4.5	1.	13.2	2.5	2.5	2.5	7.1	60.	521	.16	.16	5.	5.
27-Feb-95	M03A0312	7.46	7.4	3.	4.8	9.5	12.	2.5	2.5	2.5	6.7	164.	513	.16	.16	5.	5.
2-Mar-95	M03A0313	7.47	7.4	.5	4.4	8.5	8.	2.5	2.5	2.5	4.2	145.	271	.16	.16	5.	5.
6-Mar-95	M03A0314	7.49	7.4	1.	4.4	8.1	7.6	2.5	2.5	2.5	3.8	128.	217	.16	.16	5.	5.
9-Mar-95	M03A0315	7.38	7.4	1.	4.4	8.	7.2	2.5	2.5	2.5	3.5	193.	193	.16	.16	5.	5.
13-Mar-95	M03A0316	7.64	7.4	5.	4.4	7.2	7.	2.5	2.5	2.5	3.22	111.	180	.16	.16	5.	5.
16-Mar-95	M03A0317	7.55	7.4	.5	2.1	6.	6.6	2.5	2.5	2.5	2.9	150.	158	.16	.16	5.	5.
20-Mar-95	M03A0318	7.41	7.5	.5	2.1	6.6	6.7	2.5	2.5	2.5	2.7	97.	138	.16	.16	5.	5.
23-Mar-95	M03A0319	7.45	7.5	1.	1.5	6.	6.8	2.5	2.5	2.5	2.5	185.	137.	.16	.16	5.	5.
27-Mar-95	M03A0320	7.83	7.5	3.	1.7	12.2	8.	2.5	2.5	6.	2.89	325.	166	.16	.16	5.	5.
30-Mar-95	M03A0321	7.47	7.5														
3-Apr-95	M03A0322	7.42	7.5														

Discharge sample of 17-Oct destroyed in flood.

Chlorinated hydrocarbons value is sum of detected concentrations of 21 volatile chlorinated hydrocarbons on target compound list.

TABLE 5-2 (Continued)
Treated Water Results Summary

Collected	Set No.	As 150 PPB		Be 200 PPB		Cd 50 PPB		Cr 500 PPB		Cu 15 PPB		Pb 66 PPB		Mn 300 PPB		Hg 1 PPB		Ni 148 PPB		Se 20 PPB		Ag 5 PPB		Zn 162 PPB	
		Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg	Daily	R-Avg
1-Dec-94	M03A0287	11.		109.		.1		.5		1.		.5		7.		.1		10.		1.3		.5		4.	
5-Dec-94	M03A0288	12.		121.		.1		1.		3.		1.		19.		.1		.9		1.3		.5		9.	
8-Dec-94	M03A0289	14.		128.		.1		1.		.3		.5		3.		.1		10.		1.3		.2		3.8	
12-Dec-94	M03A0290	7.		154.		.1		7.		4.		.5		9.		.1		13.		1.3		.2		5.	
15-Dec-94	M03A0291	49.		92.		.1		2.		.7		.5		3.		.1		1.		5.		.2		5.	
19-Dec-94	M03A0292	16.		93.		.1		1.		1.		.5		3.		.1		2.		1.		.2		4.	
22-Dec-94	M03A0293	17.		130.		.1		.2		1.4		.5		2.		.1		2.		1.3		.2		1.5	
26-Dec-94	M03A0294	11.		151.		.1		.2		1.8		.5		9.		.1		4.		1.3		.2		6.	
29-Dec-95	M03A0295	18.	17.2	114.	121	.2	.1	1.	1.5	1.	1.6	.5	.6	4.	6.6	.1	.1	3.	5.1	5.	2.1	.2	.2	4.	4.7
2-Jan-95	M03A0296	9.9	17.1	172.	128	.1	.1	2.1	1.7	1.6	1.6	.5	.6	18.	7.8	.1	.1	1.	4.1	1.2	2.	.2	.2	7.	5.
5-Jan-95	M03A0297	14.	17.3	151.	132	.1	.1	3.	1.9	2.	1.5	.5	.5	57.	12.	.1	.1	6.	4.7	1.2	2.	.2	.2	20.	6.3
9-Jan-95	M03A0298	12.	17.1	171.	136	.1	.1	.9	1.9	3.	1.8	.5	.5	23.	14.2	.1	.1	4.	4.	1.3	2.	.2	.2	7.	6.6
12-Jan-95	M03A0299	16.	18.1	143.	135	.1	.1	.2	1.2	2.	1.6	.5	.5	2.	13.4	.1	.1	2.	2.8	1.3	2.	.2	.2	3.	6.4
16-Jan-95	M03A0300	12.	14.	146.	141	.1	.1	.6	1.	3.	1.9	.5	.5	1.	13.2	.1	.1	3.	3.	1.3	1.6	.2	.2	6.	6.5
19-Jan-95	M03A0301	18.	14.2	135.	146	.1	.1	.4	.9	2.	2.	.5	.5	2.	13.1	.1	.1	4.	3.2	1.3	1.7	.2	.2	18.	8.1
23-Jan-95	M03A0302	12.	13.7	140.	147	.1	.1	.2	.9	2.	2.	.5	.5	3.	13.2	.1	.1	6.	3.7	1.3	1.7	.2	.2	16.	9.7
26-Jan-95	M03A0303	16.	14.2	148.	147	.1	.1	.2	.9	2.	2.1	.5	.5	2.	12.4	.1	.1	2.	3.4	1.3	1.7	.2	.2	12.	10.3
30-Jan-95	M03A0304	9.	13.2	238.	160	.1	.1	.2	.8	2.	2.2	.5	.5	43.	16.8	.1	.1	3.	3.4	1.3	1.2	.2	.2	5.	10.4
2-Feb-95	M03A0305	10.	13.2	192.	163	.1	.1	1.	.7	2.	2.2	.5	.5	15.	16.4	.1	.1	4.	3.8	1.3	1.2	.2	.2	8.	10.6
6-Feb-95	M03A0306	11.	12.9	188.	167	.1	.1	.2	.4	1.	2.1	.5	.5	4.	10.6	.1	.1	2.	3.3	1.3	1.3	.2	.2	5.	8.9
9-Feb-95	M03A0307	16.	13.3	195.	169	.1	.1	.2	.3	4.	2.2	.5	.5	6.	8.7	.1	.1	6.	3.6	1.3	1.3	.2	.2	11.	9.3
13-Feb-95	M03A0308	13.	13.	184.	174	.1	.1	2.	.5	1.	2.1	.5	.5	15.	10.1	.1	.1	5.	3.9	1.3	1.3	.2	.2	8.	9.9
16-Feb-95	M03A0309	12.	13.	184.	178	.1	.1	.2	.5	1.	1.9	.5	.5	6.	10.7	.1	.1	6.	4.2	1.3	1.3	.2	.2	7.	10.
20-Feb-95	M03A0310	14.	12.6	191.	184	.1	.1	2.	.7	2.	1.9	.5	.5	27.	13.4	.1	.1	8.	4.7	1.3	1.3	.3	.2	6.	8.7
23-Feb-95	M03A0311	13.	12.7	165.	187	.1	.1	1.	.8	2.	1.9	.5	.5	3.	13.4	.1	.1	8.	4.9	1.3	1.3	.2	.2	9.	7.9
27-Feb-95	M03A0312	22.	13.3	144.	187	.1	.1	4.5	1.2	3.	2.	.5	.5	3.	13.6	.1	.1	12.	6.	1.3	1.3	.5	.2	2.5	6.8
2-Mar-95	M03A0313	23.	14.9	133.	175	.1	.1	2.	1.4	1.	1.9	.5	.5	15.	10.4	.1	.1	8.	6.6	1.3	1.3	.5	.2	6.	6.9
6-Mar-95	M03A0314	17.	15.7	130.	168	1.	.2	1.	1.4	3.	2.	2.2	.7	3.	9.1	.1	.1	2.5	6.4	.5	1.2	.8	.3	8.	6.9
9-Mar-95	M03A0315	24.	17.1	111.	160	.1	.2	.2	1.4	.8	2.	.5	.7	4.	9.1	.1	.1	4.	6.6	1.3	1.2	.2	.3	6.	7.1
13-Mar-95	M03A0316	17.	17.2	121.	151	.1	.2	.2	1.4	1.	1.6	.5	.7	41.	13.	.1	.1	3.	6.3	1.3	1.2	.2	.3	5.	6.4
16-Mar-95	M03A0317	23.	18.3	114.	144	.1	.2	.3	1.3	3.	1.9	.5	.7	2.	11.6	.1	.1	3.	6.1	1.3	1.2	.2	.3	11.	6.7
20-Mar-95	M03A0318	18.	19.	112.	136	.1	.2	.2	1.3	3.	2.1	.5	.7	2.	11.1	.1	.1	2.	5.6	1.3	1.2	.2	.3	3.	6.3
23-Mar-95	M03A0319	19.	19.6	119.	128	.1	.2	.2	1.	2.	2.1	.5	.7	2.	8.3	.1	.1	3.	5.1	1.3	1.2	.2	.3	4.	6.1
27-Mar-95	M03A0320	14.	19.7	130.	124	.1	.2	3.	1.3	2.	2.1	.5	.7	22.	10.4	.1	.1	5.	4.7	1.3	1.2	.2	.3	40.	9.5

Discharge sample of 17-Oct destroyed in flood.

Metals values in PPB

6.0 AMBIENT AIR MANAGEMENT

Ambient air quality management continued on an "as-needed" basis to protect the environment, human health, and site workers.

6.1 Summary of Activities

Collected and analyzed three time-integrated personnel exposure samples; the measured levels of volatile organic compounds were well below the action levels.

Sampled the ambient air in all work areas several times per shift and on a random "spot-check" basis; there were no levels of volatile organic compounds which required response action. Sampled ambient air in special work areas where burning and/or welding was planned. Sampled ambient air continuously in areas where exposure could occur and where confined space work occurred.

6.2 Problems and Response Action

Problem	Response Action
Calibrate portable vapor meters.	Train operators to calibrate; refurbish all meters.
Sampling "hot" wells.	Require respirator use when sampling "hot" wells.
Ambient air quality in all work areas.	Check all work areas with portable meter several times per day.
H_2S levels in some well vaults.	Vent vault and purge with air before working in the vaults.

6.3 Problems Resolved

None.

6.4 On-going Events/Activities

Measure ambient air quality in all work areas several times per day.

Conduct periodic time-integrated sampling in all major work areas.

Require respiratory protection when sampling "hot" wells.

Conduct necessary air sampling and analyses to issue "burn" permits.

Closely monitor ambient air quality in the vicinity of new projects/activities.

Conduct respirator fit tests on all employees.

7.0 QUALITY ASSURANCE/QUALITY CONTROL

7.1 Summary of Activities

7.1.1 Sampling

One set of personal air monitoring samples were collected in March. The following is a summary of current routine and special air matrix code sample specifics:

MATRIX CODE	SAMPLE SPECIFICS
M01D	TF at three locations

TF = Tenax® front tube

Table 7-1 is a summary of the air, soil and water samples collected for the month of March. Table 7-2 is a summary of Scheduled Sampling Events for the month of March.

7.1.2 Data Validation Activities Summary

7.1.2.1 Treated Water Samples

Data validation was completed for sample sets M03A0306, M03A0307, M03A0308, M03A0309, M03A0310, M03A0311, M03A0312, M03A0313, M03A0314 and M03A0315. These samples were collected between February 6, 1995 and March 9, 1995. QC failures are summarized in Table 7-3. Completeness values are summarized in Tables 7-4 through 7-8.

7.1.2.2 Groundwater Samples

Level I data validation was completed for sample sets collected during the 1994 annual groundwater sampling event. QC failure summaries for this sampling event are reported in Tables 7-9 through 7-13.

7.1.2.3 Other Samples

All other special sample sets were validated manually this period.

7.2 Data Validation QC Summary and Discussion

7.2.1 Level I and Level II QC Philosophy

The Quality Assurance Project Plan (QAPP) defines data validity in terms of procedural requirements which must be followed for data comparability, and numerical data quality objectives which must be met to assure precision and accuracy of the results. Precision, accuracy and completeness are the numerical Data Quality Objectives (DQOs) established for the French Project by the QAPP. The intent of the data validation process is to verify that the documentation and quality control data provided by the laboratory properly substantiate the required data quality.

For purposes of data validation procedures, the QAPP defines two QC levels: Level I and Level II. Level I data validation is specified for process control and progress monitoring sample data validation and Level II data validation is specified for remediation verification sample results and treated water discharge sample results.

TABLE 7-1

Samples Collected - March, 1995

Sample No.	Description	Location	Date Samp'd	Lab Rec'd	Data Rec'd	Lab
M01D005401	Personal air monitoring	WTP Operator	3/08	3/09	Y	A
M01D005402	Personal air monitoring	Well Maint.	3/08	3/09	Y	A
M01D005403	Personal air monitoring	Security	3/08	3/09	Y	A
M03A031301	Treated water discharge	CF Out	3/02	3/03	Y	A
M03A031401	Treated water discharge	CF Out	3/06	3/07	Y	A
M03A031501	Treated water discharge	CF Out	3/09	3/10	Y	A
M03A031601	Treated water discharge	CF Out	3/13	3/14	Y	A
M03A031701	Treated water discharge	CF Out	3/16	3/17	N	A
M03A031801	Treated water discharge	CF Out	3/20	3/21	N	A
M03A031901	Treated water discharge	CF Out	3/23	3/24	N	A
M03A032001	Treated water discharge	CF Out	3/27	3/28	N	A
M03A032101	Treated water discharge	CF Out	3/30	3/31	N	A
M04A002801	Groundwater remediation progress	ERT-022	3/07	3/09	Y	A
M04A002802	Groundwater remediation progress	INT-101	3/07	3/09	Y	A

Labs: A = American Analytical and Technical Services
N = North Water District Lab
K = Chester LabNet-Houston

TABLE 7-1

Samples Collected - March, 1995

Sample No.	Description	Location	Date Samp'd	Lab Rec'd	Data Rec'd	Lab
M04A002901	Groundwater remediation progress	INT-115	3/10	3/11	N	A
M04A002902	Groundwater remediation progress	INT-111	3/10	3/11	N	A
M04A002903	Groundwater remediation progress	S1-114	3/10	3/11	N	A
M04A002904	Groundwater remediation progress	S1-107	3/10	3/11	N	A
M04A002905	Groundwater remediation progress	S1-109	3/10	3/11	N	A
M04A002906	Groundwater remediation progress	INT-110	3/10	3/11	N	A
M04A003001	Groundwater remediation progress	S1-132	3/11	3/12	N	A
M04A003002	Groundwater remediation progress	INT-104	3/11	3/12	N	A
M04A003004	Groundwater remediation progress	INT-112	3/11	3/12	N	A
M04A003005	Groundwater remediation progress	S1-127	3/11	3/12	N	A
M04A003006	Groundwater remediation progress	FLTG-007	3/11	3/12	N	A
M04A003007	Groundwater remediation progress	INT-106	3/11	3/12	N	A
M04B002601	Groundwater remediation progress	INT-141	3/09	3/10	Y	A
M04B002602	Groundwater remediation progress	INT-144	3/09	3/10	Y	A
M04B002603	Groundwater remediation progress	S1-120	3/09	3/10	Y	A
M04B002604	Groundwater remediation progress	INT-119	3/09	3/10	Y	A
M04B002701	Groundwater remediation progress	S1-050-P-2	3/12	3/13	N	A

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TABLE 7-1

Samples Collected - March, 1995

Sample No.	Description	Location	Date Samp'd	Lab Rec'd	Data Rec'd	Lab
M04B002702	Groundwater remediation progress	S1-102	3/12	3/13	N	A
M04B002703	Groundwater remediation progress	S1-106	3/12	3/13	N	A
M04B002704	Groundwater remediation progress	S1-113	3/12	3/13	N	A
M04B002705	Groundwater remediation progress	REI-10-3	3/12	3/13	N	A
M04B002801	Groundwater remediation progress	REI-10-2	3/13	3/13	N	A
M04B002802	Groundwater remediation progress	S1-123	3/13	3/13	N	A
M04B002803	Groundwater remediation progress	INT-123	3/13	3/13	N	A
M04B002804	Groundwater remediation progress	INT-127	3/13	3/13	N	A
M04C001801	Groundwater remediation progress	ERT-022	3/09	3/10	Y	A
M04C001802	Groundwater remediation progress	INT-101	3/09	3/10	Y	A
M04C001901	Groundwater remediation progress	INT-115	3/12	3/13	N	A
M04C001902	Groundwater remediation progress	S1-114	3/12	3/13	N	A
M04C001903	Groundwater remediation progress	S1-107	3/12	3/13	N	A
M04C001904	Groundwater remediation progress	S1-109	3/12	3/13	N	A
M04C001905	Groundwater remediation progress	INT-110	3/12	3/13	N	A
M04C001906	Groundwater remediation progress	INT-111	3/12	3/13	N	A
M04C001907	Groundwater remediation progress	FLTG-007	3/12	3/13	N	A

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TABLE 7-1

Samples Collected - March, 1995

Sample No.	Description	Location	Date Samp'd	Lab Rec'd	Data Rec'd	Lab
M04C001908	Groundwater remediation progress	INT-106	3/12	3/13	N	A
M04C001909	Groundwater remediation progress	INT-104	3/12	3/13	N	A
M04C002001	Groundwater remediation progress	INT-101	3/12	3/13	N	A
M04C002002	Groundwater remediation progress	INT-120	3/12	3/13	N	A
M04C002003	Groundwater remediation progress	INT-141	3/12	3/13	N	A
M04C002004	Groundwater remediation progress	INT-144	3/12	3/13	N	A
M04C002005	Groundwater remediation progress	S1-106	3/12	3/13	N	A
M04C002006	Groundwater remediation progress	ERT-022	3/12	3/13	N	A
M04C002007	Groundwater remediation progress	S1-132	3/12	3/13	N	A
M04C002008	Groundwater remediation progress	S1-127	3/12	3/13	N	A
M04C002009	Groundwater remediation progress	INT-112	3/12	3/13	N	A
M04C002010	Groundwater remediation progress	INT-119	3/12	3/13	N	A
M06C002501	Monthly process water	T-101 Eff	3/02	3/03	Y	A
M06C002502	Monthly process water	T-101 Inf	3/02	3/03	Y	A
M06C002503	Monthly process water	R1	3/02	3/03	Y	A
M06C002504	Monthly process water	R2	3/02	3/03	Y	A
M06C002505	Monthly process water	Cell D Liqr	3/02	3/03	Y	A
M08A002001	Potable water monitoring	Potable H2O	3/16	3/17	N	A
M08B000801	Potable water monitoring	Potable H2O	3/16	3/16	N	N

Labs: A = American Analytical and Technical Services
N = North Water District Lab
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TABLE 7-1

Samples Collected - March, 1995

Sample No.	Description	Location	Date Samp'd	Lab Rec'd	Data Rec'd	Lab
M08C001101	Riverdale wells monitoring	RD-3	3/14	3/13	N	N
M08D001401	Riverdale wells monitoring	RD-3	3/13	3/14	N	A
S14A009201	Misc. Groundwater	GRD RUNOFF	3/01	3/02	Y	A
S14K001401	Groundwater remediation progress	S1-063	3/01	3/02	Y	A
S14K001402	Groundwater remediation progress	S1-127	3/01	3/02	Y	A
S14K001403	Groundwater remediation progress	S1-128	3/01	3/02	Y	A
S14K001404	Groundwater remediation progress	S1-132	3/01	3/02	Y	A
S14K001405	Groundwater remediation progress	S1-133	3/01	3/02	Y	A
S14K001406	Groundwater remediation progress	S1-134	3/01	3/02	Y	A
S14K001501	Groundwater remediation progress	INT-228	3/01	3/02	Y	A
S14L002601	Groundwater remediation progress	INT-226	3/03	3/04	Y	A
S14L002602	Groundwater remediation progress	INT-227	3/03	3/04	Y	A
S16A000801	Misc. process water	CLARIFER	3/01	3/02	Y	A
S16B003101	San Jacinto river metals	San Jac Upst	3/15	3/17	N	A

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TABLE 7-2

Scheduled Sampling Events
March, 1995

Date Sampled	Set Number	Description	Schedule
3/07/95	M04A0028	Groundwater progress moni	Monthly
3/10/95	M04A0029	Groundwater progress moni	Monthly
3/11/95	M04A0030	Groundwater progress moni	Monthly
3/09/95	M04B0026	Groundwater progress moni	Monthly
3/12/95	M04B0027	Groundwater progress moni	Monthly
3/13/95	M04B0028	Groundwater progress moni	Monthly
3/09/95	M04C0018	Groundwater progress moni	Monthly
3/12/95	M04C0019	Groundwater progress moni	Monthly
3/12/95	M04C0020	Groundwater progress moni	Monthly
3/01/95	S14K0014	Groundwater progress moni	Special
3/01/95	S14K0015	Groundwater progress moni	Special
3/03/95	S14L0026	Groundwater progress moni	Special
3/01/95	S14A0092	Misc. groundwater	Special
3/01/95	S16A0008	Misc. process water	Special
3/08/95	M01D0054	Personal air monitoring	Monthly
3/16/95	M08A0020	Potable water monitoring	Quarterly
3/16/95	M08B0008	Potable water monitoring	Quarterly
3/02/95	M06C0025	Process water monitoring	Monthly
3/14/95	M08C0011	Riverdale well monitoring	Quarterly
3/13/95	M08D0014	Riverdale well monitoring	Quarterly
3/15/95	S16B0031	San Jacinto river metals	Special
3/02/95	M03A0313	Treated water discharge	Bi-weekly
3/06/95	M03A0314	Treated water discharge	Bi-weekly
3/09/95	M03A0315	Treated water discharge	Bi-weekly
3/13/95	M03A0316	Treated water discharge	Bi-weekly
3/16/95	M03A0317	Treated water discharge	Bi-weekly
3/20/95	M03A0318	Treated water discharge	Bi-weekly
3/23/95	M03A0319	Treated water discharge	Bi-weekly
3/27/95	M03A0320	Treated water discharge	Bi-weekly
3/30/95	M03A0321	Treated water discharge	Bi-weekly

TABLE 7-3

Treated Water QC Failure Summary

Sample Date	Test	QC Failure	Explanation	Corrective Action
02/06/95	Ba	ICP Serial Dilution	ICP Serial dilution indicated interference.	None required - LCS, Duplicate and Spike were within QC limits
02/06/95	SV	SU Recov.	Surrogate Tribromophenol was outside QC limits	None required - One acid and one Base/neutral surrogate failure is allowable.
02/09/95	Ba	ICP Serial Dilution	ICP Serial dilution indicated interference.	None required - LCS, Duplicate and Spike were within QC limits
02/09/95	SV	SU Recov.	Surrogate Tribromophenol was outside QC limits	None required - One acid and one Base/neutral surrogate failure is allowable.
02/13/95	Mn	ICP Serial Dilution	ICP Serial dilution indicated interference.	None required - LCS, Duplicate and Spike were within QC limits
02/20/95	Ba	ICP Serial Dilution	ICP Serial dilution indicated interference.	None required - LCS, Duplicate and Spike were within QC limits
02/20/95	Mn	ICP Serial Dilution	ICP Serial dilution indicated interference.	None required - LCS, Duplicate and Spike were within QC limits
02/27/95	Ba	ICP Serial Dilution	ICP Serial dilution indicated interference.	None required - LCS, Duplicate and Spike were within QC limits
03/02/95	Ba	ICP Serial Dilution	ICP Serial dilution indicated interference.	None required - LCS, Duplicate and Spike were within QC limits
03/02/95	Mn	ICP Serial Dilution	ICP Serial dilution indicated interference.	None required - LCS, Duplicate and Spike were within QC limits
03/06/95	Pb	Spike Accuracy	Spike percent recovery was outside QC limits.	None required - LCS and duplicate were within control limits. Sample concentration was well below action level.
03/09/95	Ba	ICP Serial Dilution	ICP Serial dilution indicated interference.	None required - LCS, Duplicate and Spike were within QC limits

7.2.2 Completeness Summaries

Tables 7-4 through 7-8 summarize completeness values for VOA, SVA, PCBs, Metals and miscellaneous parameters on treated water samples.

VOA (Table 7-4)

A total of 10 VOA sample sets have been validated with all categories meeting Project Completeness Goals.

SVA (Table 7-5)

A total of 10 SVA sample sets have been validated for this time period. All categories meet or exceed Project Completeness Goals with the exception of sample matrix effect. This is due to matrix effect failures in the early stages of the project and the MS/MSD accuracy failures that occurred during September and October 1994.

PCBs (Table 7-6)

A total of 10 PCB sample sets have been validated for this time period with all samples, meeting data quality objectives. All categories meet or exceed Project Completeness Goals.

Metals (Table 7-7)

A total of 10 sample sets have been validated for this time period. Project Completeness Goals are met or exceeded in all categories.

Miscellaneous Parameters (Table 7-8)

A total of 10 sample sets have been validated for this time period. Project completeness goals are met or exceeded in all categories.

TABLE 7-4

Completeness Summary
M03A Treated Water
Volatile Organics Analyses

SAMPLE DATE SET NUMBER	M03A0306 thru M03A0315	Project to Date	PROJECT GOAL
Analysis Holding Time	100	100	100
12 Hour Window	100	100	100
SU Check	100	93	90
SU1 (d4-1,2-DCE)	100	97	90
SU2 (d8-Toluene)	100	98	90
SU3 (4-BFB)	100	99	90
IS Check	100	100	90
IS1 (BrClMethane)	100	100	90
IS2 (1,4-DiFlBenzene)	100	100	90
IS3(d5-ClBenzene)	100	100	90
Sample RT/RRT Check	100	*	
Vinyl Chloride			
Accuracy	100	99	90
Precision	100	99	90
Benzene			
Accuracy	100	99	90
Precision	90	100	90
No Group Matrix Effect	100	*	90
No Sample Matrix Effect	100	*	90
Tune Check	100	*	
Overall ICAL Check	100	*	
Overall CCAL Check	100	*	
Overall Lab Blank Check	100	*	

* - Level II QC checks were performed on 10% of samples prior to 6/14/93. PTD completeness values do not apply to these checks.

TABLE 7-5

Completeness Summary
M03A Treated Water
Semivolatile Organic Analyses

SAMPLE DATE SET NUMBER	M03A0306 thru M03A0315	Project to Date	PROJECT GOAL
Extract Holding Time	100	100	100
Analysis Holding Time	100	100	100
12 Hour Window	100	100	100
SU Check	**100**	**95**	**90**
SU1 (2-FlPhenol)	100	95	90
SU2 (d5-Phenol)	100	93	90
SU3 (d5-Nitrobenz)	60	96	90
SU4(2-FlBiphenyl)	100	97	90
SU5(2,4,6-TBPh)	100	94	90
SU6(d14-Terphen)	100	94	90
IS Check	**100**	**96**	**90**
IS1 (d4-1,4-DiClBenz)	100	100	90
IS2 (d8-Naph)	100	100	90
IS3 (d10-Acenaph)	100	100	90
IS4 (d10-Phenanth)	100	100	90
IS5 (d12-Chrysene)	90	97	90
IS6 (d12-Perylene)	100	96	90
Sample RT/RRT	100	*	*
Napthalene			
Accuracy	90	96	90
Precision	100	99	90
No Group Matrix Effect	100	100	90
No Sample Matrix Effect	100	89	90
Tune Check	100	*	*
Overall ICAL Check	100	*	*
Overall CCAL Check	100	*	*
Overall Lab Blank Check	100	*	*

* - Level II QC checks were performed on 10% of samples prior to 6/14/93.
PTD completeness values do not apply to these checks.

TABLE 7-6

Completeness Summary
M03A Treated Water
PCB Analyses

SAMPLE DATE SET NUMBER	M03A0306 thru M03A0315	Project to Date	PROJECT GOAL
Extract Holding Time	100	100	100
Analysis Holding Time	100	100	100
12 Hour Window	100	100	100
SU Check - Column A	100	99	90
SU1 (DCBP)	100	85	NS
SU2 (TCMX)	100	97	NS
SU Check - Column B	100	98	90
SU1 (DCBP)	100	87	NS
SU2 (TCMX)	100	97	NS
SU Check - Column A or B	100	98	90
Aroclor 1242			
Accuracy	100	99	90
Precision	100	97	90
Overall ICAL Check	100	*	
Overall 1st CCAL Check	100	*	
Overall 2nd CCAL Check	100	*	
Overall Lab Blank Check	100	*	

* - Level II QC checks were performed on 10% of samples prior to 6/14/93.
PTD completeness values do not apply to these checks.

TABLE 7-7

Completeness Summary
M03A Treated Water
Metals Analyses

SAMPLE DATE SET NUMBER	M03A0306 thru M03A0315	PROJECT GOAL
ANALYTE: BARIUM		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: CADMIUM		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: CHROMIUM		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: COPPER		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: LEAD		
MS Accuracy	90	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100

W - All samples waived due to low response

* Matrix interference is indicated by:
Furnace analyses - failure of analytical spike or low MSA coefficient
ICP analyses - failure of serial dilution

TABLE 7-7 (Continued)

Completeness Summary
M03A Treated Water
Metals Analyses

SAMPLE DATE SET NUMBER	M03A0306 thru M03A0315	PROJECT GOAL
ANALYTE: MANGANESE		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: NICKEL		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: SILVER		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: ZINC		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: MERCURY		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100

W - All samples waived due to low response

* Matrix interference is indicated by:
Furnace analyses - failure of analytical spike or low MSA coefficient
ICP analyses - failure of serial dilution

TABLE 7-7 (Continued)

Completeness Summary
M03A Treated Water
Metals Analyses

SAMPLE DATE SET NUMBER	M03A0306 thru M03A0315	PROJECT GOAL
ANALYTE:ARSENIC		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100
ANALYTE: SELENIUM		
MS Accuracy	100	95
DUP Precision/Difference	100	95
No Matrix Interference*	100	NA
Prep Blank Check	100	100
Lab Control Spike Check	100	100

W - All samples waived due to low response

* Matrix interference is indicated by:
Furnace analyses - failure of analytical spike or low MSA coefficient
ICP analyses - failure of serial dilution

TABLE 7-8

Completeness Summary
M03A Treated Water
Miscellaneous Parameters Analyses

SAMPLE DATE SET NUMBER	M03A0306 thru M03A0315	Project to Date	PROJECT GOAL
PARAMETER: TOC			
Analysis Hold Time	100	100	100
MS Accuracy	100	100	NA
DUP Precision	100	100	NA
PARAMETER: OILS			
Analysis Hold Time	100	100	100
MS Accuracy	100	100	NA
DUP Precision	100	100	NA
PARAMETER: TSS			
Analysis Hold Time	100	100	100
MS Accuracy	NA	NA	NA
DUP Precision	100	100	NA

TABLE 7-9

Sample Failure Summary
1994 Annual Groundwater Monitoring
Volatile Organics Analyses

Sample Number	QC Level	QC Failure	Explanation	Corrective Action
M04B0018 (All)	I	Analysis HT	Samples were analyzed after holding time had expired.	Analysis invoice not paid.
M04B0022 (All)	I	Blank Clean	Blank had 1,2-Dichloroethane at greater than allowable concentration.	Data flagged.
M04B0023 (All)	I	Blank Clean	Blank had 1,2-Dichloroethane at greater than allowable concentration.	Data flagged.
M04D001703 RA	I	Analysis HT	Sample re-analysis was performed after holding time had expired.	Data flagged.
M04D001703 M04D001707	I	12 Hour	Samples analyzed outside 12 hour tune window.	Data used with caution. Invoice not paid. Compounds of concern still well above cleanup criteria.
M04G0002 (All)	I	Blank Clean	Blank had 1,2-Dichloroethane at greater than allowable concentration.	Data flagged.

TABLE 7-10

Sample Failure Summary
1994 Annual Groundwater Monitoring
Semivolatile Organics Analyses

Sample Number	QC Level	QC Failure	Explanation	Corrective Action
M04D001605 DL	I	SU Recov.	Surrogate recovery was outside control limits for diluted sample.	None required. Data not affected.
M04D001704 M04D001704 DL	I	SU Recov.	Surrogate recovery was outside control limits for sample and diluted sample.	None required. Data not affected.
M04D001707 M04D001707 RE M04D001702, & 02MS M04D001702 RE	I	SU Recov.	Surrogate recovery was outside control limits for sample and re-extracted sample.	None required. Data not affected.
M04D001702 RE M04D001707 RE	I	Extract. HT	Extraction holding time was exceeded for the re-extraction	None required.
M04D001801 & RE M04D001802 & RE	I	SU Recov.	Surrogate recovery was outside control limits for sample and re-extracted sample.	None required. Data not affected.
M04D001801 RE M04D001802 RE	I	Extract. HT	Extraction holding time was exceeded for the re-extraction	None required.
M04G000201 M04G000201 RE	I	SU Recov.	Surrogate recovery was outside control limits for sample and re-extracted sample.	Sample was re-extracted and all surrogates were within QC limits.
M04H000201	I	Extract. HT	Extraction holding time was exceeded.	Analytical invoice was not paid.

TABLE 7-11

Sample Failure Summary
1994 Annual Groundwater Monitoring
Pesticide/PCB Analyses

Sample Number	QC Level	QC Failure	Explanation	Corrective Action
M04D0014 (Most)	I	SU Recov.	Surrogate recoveries for most samples were outside QC limits on both columns.	None required - Matrix effect indicated.
M04D0015 (Most)	I	SU Recov.	Surrogate recoveries for most samples were outside QC limits on both columns.	None required - Matrix effect indicated.
M04D0016 (Most)	I	SU Recov.	Surrogate recoveries for most samples were outside QC limits on both columns.	None required - Matrix effect indicated.
M04D0017 (All)	I	SU Recov.	Surrogate recoveries for all samples, including MS/MSD, were outside QC limits.	None required - Matrix effect indicated.
M04D0018 (All)	I	SU Recov.	Surrogate recoveries for all samples, including MS/MSD, were outside QC limits.	None required - Matrix effect indicated.
M04D0017 MS/MSD Pair	I	MS Accur.	Matrix spike percent recovery was outside QC limits	Matrix effect indicated.
M04D0018 MS/MSD Pair	I	MS Accur.	Matrix spike percent recoveries were outside QC limits	Matrix effect indicated.

TABLE 7-12

Sample Failure Summary
1994 Annual Groundwater Monitoring
Metals Analyses

Sample Number	QC Level	QC Failure	Explanation	Corrective Action
Aluminum				
M04D0014 (All)	I	Dup Prec. MS Accur.	Duplicate precision was outside control limits Matrix spike percent recovery was outside control limits.	None required - No cleanup criteria for this analyte.
M04D0015 (All)	I	Dup Prec. MS Accur.	Duplicate precision was outside control limits Matrix spike percent recovery was outside control limits.	None required - No cleanup criteria for this analyte.
M04D0016 (All)	I	Dup Prec. MS Accur.	Duplicate precision was outside control limits Matrix spike percent recovery was outside control limits.	None required - No cleanup criteria for this analyte.
M04D0017 (All)	I	Dup Prec. MS Accur. Ser. Dilut.	Duplicate precision was outside control limits Matrix spike percent recovery was outside control limits. ICP serial dilution indicated interference.	None required - No cleanup criteria for this analyte.
M04D0018 (All)	I	Dup Prec. MS Accur. Ser. Dilut.	Duplicate precision was outside control limits Matrix spike percent recovery was outside control limits. ICP serial dilution indicated interference.	None required - No cleanup criteria for this analyte.
Barium				
M04D0017 (All)	I	Ser. Dilut.	ICP serial dilution indicated interference.	None required - No cleanup criteria for this analyte.
M04D0018 (All)	I	Ser. Dilut.	ICP serial dilution indicated interference.	None required - No cleanup criteria for this analyte.
Manganese				
M04D0017 (All)	I	Ser. Dilut.	ICP serial dilution indicated interference.	None required - No cleanup criteria for this analyte.
M04D0018 (All)	I	Ser. Dilut.	ICP serial dilution indicated interference.	None required - No cleanup criteria for this analyte.

TABLE 7-12 (continued)

Sample Failure Summary
1994 Annual Groundwater Monitoring
Metals Analyses

Sample Number	QC Level	QC Failure	Explanation	Corrective Action
Magnesium				
M04D0017 (All)	I	Ser. Dilut.	ICP serial dilution indicated interference.	None required - No cleanup criteria for this analyte.
M04D0018 (All)	I	Ser. Dilut.	ICP serial dilution indicated interference.	None required - No cleanup criteria for this analyte.
Iron				
M04D0014 (All)	I	Ser. Dilut. MS Accur.	ICP serial dilution indicated interference. Matrix spike percent recovery was outside control limits.	None required - No cleanup criteria for this analyte.
M04D0015 (All)	I	Ser. Dilut. MS Accur.	ICP serial dilution indicated interference. Matrix spike percent recovery was outside control limits.	None required - No cleanup criteria for this analyte.
M04D0016 (All)	I	Ser. Dilut. MS Accur.	ICP serial dilution indicated interference. Matrix spike percent recovery was outside control limits.	None required - No cleanup criteria for this analyte.

*All sets QC Level I.

TABLE 7-13

Sample Failure Summary
1994 Annual Groundwater Monitoring
Miscellaneous Parameters Analyses

Sample Number	QC Level	QC Failure	Explanation	Corrective Action
Nitrate				
M04B0022 (All)	I	Analysis HT	Sample was analyzed after holding time had expired,	Analysis invoice not paid.
M04E000901	I	Analysis HT	Sample was analyzed after holding time had expired,	Analysis invoice not paid.
M04F0009 (All)	I	Analysis HT	Sample was analyzed after holding time had expired,	Analysis invoice not paid.
M04G0002 (All)	I	Analysis HT	Sample was analyzed after holding time had expired,	Analysis invoice not paid.
Orthophosphate				
M04B0022 (All)	I	Analysis HT	Sample was analyzed after holding time had expired,	Analysis invoice not paid.
M04E000901	I	Analysis HT	Sample was analyzed after holding time had expired,	Analysis invoice not paid.
M04F0009 (All)	I	Analysis HT	Sample was analyzed after holding time had expired,	Analysis invoice not paid.
M04G0002 (All)	I	Analysis HT	Sample was analyzed after holding time had expired,	Analysis invoice not paid.

*All sets QC Level I.

8.0 SITE MAINTENANCE

8.1 Summary of Activities

8.1.1 General Housekeeping

The site safety and housekeeping inspections and responses kept grounds safe and attractive for employees and visitors.

8.1.2 Purchasing

All purchases were covered by written requisitions and purchase orders. Purchase of chemicals is now reduced to groundwater treatment and insitu remediation.

A contract extension was issued to JEDI for completion for two INT pumping wells on Task #18.

8.1.3 Equipment Maintenance

Routine preventive and production maintenance was performed on all equipment.

8.2 Visitors

The following visitors were recorded at the site during March:

March 9:	(b) (6) local resident
March 10:	Margaret O'Hare, CH2M Hill
March 14:	Burt Campbell, PMCI Vince Small, C&L George Gregory, C&L Steve Guezzo, PMCI

March 17: (b) (6) local resident
(b) (6) local resident

March 22: Chuck Collins, Sr., Tom-Mac

March 31: Dick Woodward, Sierra
Salil Sen, Calgon
Marta Bourke, Calgon

8.3 Emergency Equipment

8.3.1 Flood Gate Test

The flood gate was exercised on March 19, 1995, with one small leak detected at the striker seal.

8.3.2 P-8 Auxiliary Pump

P-8 Auxiliary Pump has been converted to the lagoon ground cover vegetation sprinkler source. It has operated approximately 72 hours in March.

8.3.3 Fire Extinguishers

All fire extinguishers were inspected and certified.

8.4 Security

Smith Security provides 24-hour security at the FLTG site, including the south side of Gulf Pump Road; all site areas are checked hourly. No incidents reported by Security in March.

8.5 Operator Training

All training is documented and records are maintained on site.

8.6 Data Management

Data base is fully operational. Data is entered on a daily basis.

8.7 Personnel Monitoring

Results of personnel monitoring conducted during March are included in Table 8-1.

8.8 OVM System

Work areas are being monitored daily with Organic Vapor Monitor 580A.

8.9 Repository

Records from the March review are listed in Attachment 8A.

8.10 Meteorological Data

The new meteorological station was placed on-line January 25th and is now operational. Data is generated on a weekly basis.

Rainfall data is listed in Table 8-2.

TABLE 8-1

On-Site Employee Contaminant Limits
(From OSHA 29 CFR 1910 Subpart Z)

Compound	PEL 8 hour PPM	M01D005401 8-Mar-95 WTP Operator		M01D005402 8-Mar-95 Sample Trailer		M01D005403 8-Mar-95 Security	
		% of PEL	PPM	% of PEL	PPM	% of PEL	PPM
Chloromethane	50	0.001	0.000	0.001	0.001	0.002	0.001
Bromomethane	5	0.000	0.000	0.000	0.000	0.000	0.000
Vinyl chloride	1	0.000	0.000	0.000	0.000	0.000	0.000
Chloroethane	1000	0.000	0.000	0.000	0.000	0.000	0.000
Dichloromethane	50	0.002	0.001	0.005	0.003	0.010	0.005
Acetone	750	0.001	0.004	0.001	0.005	0.001	0.005
Carbon disulfide	10	0.000	0.000	0.000	0.000	0.000	0.000
1,1-Dichloroethene	5	0.000	0.000	0.074	0.004	0.303	0.015
1,1-Dichloroethane	100	0.000	0.000	0.000	0.000	0.000	0.000
trans-1,2-Dichloroethe	200	0.000	0.001	0.002	0.004	0.004	0.008
Chloroform	10	0.018	0.002	0.003	0.000	0.005	0.001
1,2-Dichloroethane	10	0.002	0.000	0.000	0.000	0.000	0.000
2-Butanone	200	0.000	0.000	0.000	0.001	0.000	0.000
1,1,1-Trichloroethane	350	0.000	0.000	0.000	0.000	0.000	0.000
Carbon Tetrachloride	5	0.000	0.000	0.000	0.000	0.000	0.000
Vinyl acetate	10	0.000	0.000	0.000	0.000	0.000	0.000
Bromodichloromethane			0.000		0.000		0.000
1,2-Dichloropropane	75	0.000	0.000	0.000	0.000	0.000	0.000
cis-1,3-Dichloropropen	1	0.000	0.000	0.000	0.000	0.000	0.000
Trichloroethene	50	0.000	0.000	0.000	0.000	0.000	0.000
Dibromochloromethane			0.000		0.000		0.000
1,1,2-Trichloroethane	10	0.000	0.000	0.000	0.000	0.000	0.000
Benzene	1	0.000	0.000	0.069	0.001	0.000	0.000
trans-1,3-Dichloroprop	1	0.000	0.000	0.000	0.000	0.000	0.000
2-Chloroethylvinyl ether			0.000		0.000		0.000
Bromoform	0.5	0.000	0.000	0.000	0.000	0.000	0.000
4-Methyl-2-pentanone	50	0.000	0.000	0.000	0.000	0.000	0.000
2-Hexanone	5	0.000	0.000	0.000	0.000	0.000	0.000
Tetrachloroethene	50	0.000	0.000	0.000	0.000	0.000	0.000
1,1,2,2-Tetrachloroet	1	0.000	0.000	0.000	0.000	0.000	0.000
Toluene	100	0.000	0.000	0.001	0.001	0.000	0.000
Chlorobenzene	10	0.000	0.000	0.000	0.000	0.000	0.000
Ethylbenzene	100	0.000	0.000	0.000	0.000	0.000	0.000
Styrene	50	0.000	0.000	0.000	0.000	0.000	0.000
Xylene (total)	100	0.000	0.000	0.000	0.000	0.000	0.000
Hexane			0.002		0.002		0.003

TABLE 8-2

Rainfall Data for March, 1995

Day	Date	Rainfall Inches	Avg Wind Speed (mph)	Avg Temp. (deg. C)	Avg Rel. Hum. (%)	Avg Bar. Pressure mbar
Wednesday	1-Mar-95	0.15	6.4	12	80	1022
Thursday	2-Mar-95	0.13	4.5	8	88	1024
Friday	3-Mar-95	0.07	5.1	7	97	1024
Saturday	4-Mar-95	0.06	2.3	11	100	1017
Sunday	5-Mar-95	0.01	1.9	17	96	1012
Monday	6-Mar-95	0.01	5.1	21	95	1009
Tuesday	7-Mar-95	0.67	11.7	12	82	1012
Wednesday	8-Mar-95	0.00	9	7	51	1027
Thursday	9-Mar-95	0.00	2	9	59	1029
Friday	10-Mar-95	0.00	3.1	11	78	1027
Saturday	11-Mar-95	0.00	5.3	16	89	1023
Sunday	12-Mar-95	0.00	8.7	19	89	1017
Monday	13-Mar-95	1.88	5.7	17	96	1013
Tuesday	14-Mar-95	0.00	2.6	16	83	1014
Wednesday	15-Mar-95	0.01	1.8	15	86	1013
Thursday	16-Mar-95	0.02	2.1	15	87	1013
Friday	17-Mar-95	0.04	2	15	93	1015
Saturday	18-Mar-95	0.00	2.8	17	78	1017
Sunday	19-Mar-95	0.00	1.9	20	66	1016
Monday	20-Mar-95	0.00	5.5	22	70	1011
Tuesday	21-Mar-95	0.00	4.2	23	79	1010
Wednesday	22-Mar-95	0.00	5.8	22	81	1010
Thursday	23-Mar-95	0.00	5.2	24	84	1008
Friday	24-Mar-95	0.00	2.5	23	89	1008
Saturday	25-Mar-95	0.00	5.4	22	88	1008
Sunday	26-Mar-95	0.00	7	23	87	1009
Monday	27-Mar-95	0.03	5.9	22	86	1012
Tuesday	28-Mar-95	0.00	6	21	45	1017
Wednesday	29-Mar-95	0.35	6.7	14	80	1016
Thursday	30-Mar-95	0.37	5.6	11	96	1016
Friday	31-Mar-95	0.00	3.9	18	75	1014
March Monthly Averages :		3.80 *	4.8	16.5	82.4	1016

* = Total inches rainfall

ATTACHMENT 8A

Repository Status Report: March, 1995

REPOSITORY STATUS REPORT: March, 1995

At the Rice University Library...

1. Remedial Investigation Report April, 1985
2. Remedial Investigation Report Appendices, Volume II, April, 1985
3. Remedial Investigation Report June, 1986 (Updated from April, 1985)
4. Remedial Investigation Report Appendices, Volume I, February, 1986 (Revised June, 86)
5. Remedial Investigation Report Appendices, Volume II, February, 1986 (Revised June, 1986)
6. Remedial Investigation Report Appendices, Volume III, February, I986
7. 1986 Field Investigation and Supplemental Remedial Investigation Report Volume I, December, 1986
8. 1986 Field Investigation and Supplemental Remedial Investigation Report French Limited Site Volume II, Appendices December, 1986
9. 1986 Field Investigation Hydrology Report, December 19, 1986
10. Endangerment Assessment Report February, 1987
11. Endangerment Assessment Report April I987 (Updated from February, 1987)
12. Feasibility Study Report, March 1987
13. In Situ Biodegradation Demonstration Report Volume I Executive Summary, October 30, 1987 Revised 11-11-87
14. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume I, November 30, 1987
15. In Situ Biodegradation Demonstration Report Volume II, October 30, 1987 (Revised February 1, 1988 at Site only)
16. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume II, November 30, 1987 + Appendices

17. In Situ Biodegradation Demonstration Report Volume III Appendices, October 30, 1987

18. In Situ Biodegradation Demonstration Report Volume III, Appendices, Supplemental Report, November 30, 1987

19. In Situ Biodegradation Demonstration Report French Limited Site, Volume IV October 30, 1987 + Appendices

20. In Situ Biodegradation Demonstration Supplemental Report French Limited Site, Volume IV November 30, 1987 + Appendices

21. In Situ Biodegradation Demonstration Report French Limited Site Volume V, October 30, 1987

22. In Situ Biodegradation Demonstration Report French Limited Site Volume V Appendices, November 30, 1987 - Supplemental Report

23. In Situ Biodegradation Demonstration Report French Limited Site Volume VI Appendices, October 30, 1987

24. In Situ Biodegradation Demonstration Report French Limited Site Volume VII Appendices, October 30, 1987

25. In Situ Biodegradation Demonstration Report French Limited Site Volume VIII Appendices, October 30, 1987

26. In Situ Biodegradation Demonstration Report French Limited Site Volume IX Appendices, October 30, 1987

27. In Situ Biodegradation Demonstration Report French Limited Site Volume X Appendices, October 30, 1987

28. In Situ Biodegradation Demonstration Report French Limited Site Volume XI Appendices, October 30, 1987

29. In Situ Biodegradation Demonstration Report French Limited Site Volume XII Appendices, October 30, 1987

30. In Situ Biodegradation Demonstration Report French Limited Site Volume XIII Appendices, October 30, 1987

31. In Situ Biodegradation Demonstration Report French Limited Site Volume XIV Appendices, October 30, 1987

32. In Situ Biodegradation Demonstration Report French Limited Site Volume XV Appendices, October 30, 1987

33. In Situ Biodegradation Demonstration Report French Limited Site Volume XVI Appendices, October 30, 1987

34. In Situ Biodegradation Demonstration Report French Limited Site Volume XVII Appendices, October 30, 1987

35. In Situ Biodegradation Demonstration Report French Limited Site Volume XVIII Appendices, October 30, 1987

36. Proposed In Situ Biodegradation Demonstration French Limited Site Phase III, April, 1987

37. In Situ Bioremediation Demonstration French Limited April, 1987 Monthly Report, Equipment Evaluation Phase IV

38. In Situ Bioremediation Demonstration French Limited May, 1987 Monthly Report, Equipment Evaluation Phase IV

39. In Situ Bioremediation Demonstration French Limited June, 1987 Monthly Report, Equipment Evaluation Phase IV

40. In Situ Bioremediation Demonstration French Limited July, 1987 Monthly Report, Equipment Evaluation Phase IV

41. In Situ Bioremediation Demonstration French Limited August, 1987 Monthly Report, Equipment Evaluation Phase IV

42. In Situ Bioremediation Demonstration French Limited November, 1987 Monthly Report, Equipment Evaluation Phase IV

43. In Situ Bioremediation Demonstration French Limited December, 1987 Monthly Report, Equipment Evaluation Phase IV

44. In Situ Bioremediation Demonstration French Limited January, 1988 Monthly Report, Equipment Evaluation Phase IV

45. In Situ Bioremediation Demonstration French Limited February, 1988 Monthly Report, Equipment Evaluation Phase IV

46. In Situ Bioremediation Demonstration French Limited March, 1988 Monthly Report, Equipment Evaluation Phase IV

47. In Situ Bioremediation Demonstration French Limited April, 1988 Monthly Report, Equipment Evaluation Phase IV

48. In Situ Biodegradation Demonstration French Limited May/June 1988 Monthly Report, Equipment Evaluation Phase IV

49. In Situ Bioremediation Demonstration French Limited July, 1988 Monthly Report, Equipment Evaluation Phase IV

50. In Situ Bioremediation Demonstration French Limited August, 1988 Monthly Report, Equipment Evaluation Phase IV

51. In Situ Bioremediation Demonstration French Limited September, 1988 Monthly Report, Equipment Evaluation Phase IV

52. Supplemental Biodegradation Equipment Evaluation French Limited Site - Phase IV, September 26, 1988

53. In Situ Biodegradation Demonstration Phase III Quality Assurance Project Plan for French Limited Site, March, 1987

54. Addendum to Quality Assurance Project Plan for the French Limited Site In Situ Biodegradation Demonstration Phase III, February 16, 1990

55. Site Safety and Health Plan French Limited Site - Phase III, April 1987 (Revision 2)

56. Remedial Action Plan Volume I - April, 1990

57. Remedial Action Plan Volume I - September, 1990 (Updated from April, 1990)

58. Remedial Action Plan Volume II Quality Assurance April, 1990

59. Remedial Action Plan Volume II Quality Assurance September, 1990 (Updated from April 1990) Revised June 3, 1991

60. Remedial Action Plan Volume II Quality Assurance June, 1990 Appendix A - Quality Assurance Sampling Procedures and Appendix B - Analytical Methods - B.1 - B.53, September 22, 1989 Revised September 28, 1990

61. Remedial Action Plan Volume III - Health and Safety, July 20, 1990

62. Remedial Action Plan Volume IV - Spill and Volatile Organic Release Contingency Plan (April 6, 1990)

63. Remedial Action Plan Volume V - Shallow Aquifer and Subsoil Remediation Process Design, May, 1990
Page v.i.3 Missing

64. Remedial Action Plan Volume V - Shallow Aquifer and Subsoil Remediation Process Design, July 20, 1990, (Updated from May, 1990)

65. 1988 Equipment Evaluation Phase IV Report French Limited Site: Volume I, February 1,1990

66. 1988 Equipment Evaluation Phase IV Report French Limited Site: Volume II, February 1, 1990

67. 1988 Slough Investigation Report French Limited Site, October 1988

68. Ambient Air Impact Risk Assessment Report, May 5, 1989

69. Workplan for the Shallow Aquifer Pumping Tests for the French Limited Site, July 22, 1988
Page 80 Missing

70. French Limited Site Hurricane Gilbert Preparation Report, October, 1988

71. Potable Water Well Installation Report French Limited Site, December 7, 1988

72. Bioresidue Fixation Alternatives Evaluation Report French Limited Site March 20, 1989

73. Hydrogeologic Characterization Report, March 1989

74. Hydrogeologic Characterization Report - Appendices, March 1989

75. San Jacinto River May 19, 1989 Flood Event Report, June 1989

76. Post San Jacinto River May 1989 Flood Event Soils and Water Analysis Program - Volume I, August 16, 1989

77. Post San Jacinto River 1989 Flood Event Soil and Water Analysis Program Volume II Appendix A

78. Post San Jacinto River 1989 Flood Event Soil and Water Analysis Program Volume III Appendix A, August 16, 1989

79. Riverdale Lake Area Remediation Program August 15, 1989

80. Flood and Migration Control Wall Design Report, August 16, 1989

81. Flood and Migration Control Wall Design Report Appendix C Access Way Design, September, 1989

82. North Pit Remediation Report French Limited Site, November 6, 1989

83. Installation Report for Flood and Migration Control Wall, January 8, 1990

84. Installation Report for Flood and Migration Control Wall
Appendix A - ENSR Site Logs

85. Installation Report for Flood and Migration Control Wall
Appendix B - Inspection Reports

86. Installation Report for Flood and Migration Control Wall Appendix C - Pile Driving Inspection Report January 8, 1990

87. Flood Wall Gate Test Report French Limited Site, February 1990

88. French Limited Remediation Design Report - Executive Summary Bioremediation/Shallow Aquifer, July, 1991

89. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume I of III - Summary Report and Appendices A-H, July 1991

90. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume II of III - Appendices I-M, June 1991

91. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume III of III - Appendices N-P, June 1991

92. Bioremediation Facilities Design Report Volume II of IV Appendices, Reports and Calculations (March 20, 1991)

93. Bioremediation Facilities Design Report Volume III of IV
Appendix E - Design Specifications (March 20, 1991)

94. Bioremediation Facilities Design Report Volume IV of IV - Air Monitoring, March 20, 1991

95. Public Health Assessment for French Limited March 30, 1993 from U.S. Department of Health and Human Services

96. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 1, Report, Appendices A-E

97. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 2, Appendix F

98. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 3, Appendix F continued

99. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 4, Appendix G

100. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 5, Appendix H

101. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 6, Appendix H continued

102. Record of Public Meeting Regarding Remedial Investigation and Feasibility Study (5-21-87)

103. Summary of Remedial Alternative Selection 1988

104. Declaration for the Record of Decision 1988

105. Record of Public Meeting Regarding Remedial Investigation and Feasibility Study (2-11-88) (Updated from June 21, 1987)

106. Consent Decree between the Federal Government and the FLTG

107. French Limited Superfund Site Community Relations Revised Plan August, 1989 - Jacob's Engineering

108. Results of the French Limited Task Group Survey (Goldman and Company) April, 1987

109. Goldman Public Relations Clipping Report

110. BioGEE International, Inc., Project Report Biotreatability Study Using Isolated Indigenous Organisms, April, 1994

111. Field Evaluation of Biodegradation at the French Limited Site (Phase II) Volume I

112. Laboratory Evaluation of Biodegradation at the French Limited Site

113. French Limited Site Focused Feasibility Study (May 1987)

114. Annual Groundwater Monitoring Report, December 1993, Report and Appendices A-B

115. Annual Groundwater Monitoring Report, December 1993, Appendices C-H

116. DNAPL Study Remedial Alternative Selection and Feasibility Study Report, November 1994

117. Cell E and Cell D/F Remediation Verification Report

118. French Limited Wetlands Mitigation, Final Site Restoration Plan

119. French Limited Wetlands Mitigation, Site Selection Report

120. French Limited Wetlands Mitigation, 404 and 401 Permit Application, U.S. Army Corps of Engineers, Galveston, TX

121. Quality Assurance Report, February 15, 1993, Report No. QA93003

122. Quality Assurance Report, January 20, 1994, Report No. QA94001

123. Environmental Protection Agency, Region VI, Hazardous Waste Management Division, First Five Year Review (Type Ia), CERCLIS TXD-980514814, December 1944

124. ARCS, French Limited Site 1993, Annual Groundwater Sampling and Comparison Report, CH2M Hill, January, 1995

125. Annual Groundwater Monitoring Report, December, 1994, Report and Appendices A-G

126. Monthly Progress Report, January 1992

127. Monthly Progress Report, January, 1992 Appendices A-C

128. Monthly Progress Report, January, 1992 Appendices E, F

129. Monthly Progress Report, January, 1992 Appendices G

130. Monthly Progress Report, February, 1992

131. Monthly Progress Report, February, 1992 Appendices A-B

132. Monthly Progress Report, February, 1992 Appendices C 1

133. Monthly Progress Report, February, 1992 Appendices C 2

134. Monthly Progress Report, February, 1992 Appendices D-E

135. Monthly Progress Report, March, 1992

136. Monthly Progress Report, March, 1992, Appendix A

137. Monthly Progress Report, April, 1992

138. Monthly Progress Report, April, 1992, Appendices A-B

139. Monthly Progress Report, May, 1992

140. Monthly Progress Report, May, 1992, Appendices A-B

141. Monthly Progress Report, June, 1992

142. Monthly Progress Report, June, 1992, Appendices A-B

143. Monthly Progress Report, July 1992

144. Monthly Progress Report, July 1992, Appendices A-B

145. Monthly Progress Report, July 1992, Appendices B1-B22 Vol. 1 of 3

146. Monthly Progress Report, July 1992, Appendices B1-B22 Vol. 2 of 3

147. Monthly Progress Report, July 1992, Appendices B1-B22 Vol. 3 of 3

148. Monthly Progress Report, August, 1992

149. Monthly Progress Report, August, 1992, Appendices A-B

150. Monthly Progress Report, September, 1992

151. Monthly Progress Report, September, 1992, Appendices A-B

152. Monthly Progress Report, October, 1992

153. Monthly Progress Report, October, 1992, Appendices A-B

154. Monthly Progress Report, November, 1992

155. Monthly Progress Report, November, 1992 Appendices A-B

156. Monthly Progress Report, December, 1992

157. Monthly Progress Report, December, 1992 Appendices A, B

158. Monthly Progress Report, January, 1993

159. Monthly Progress Report, February, 1993

160. Monthly Progress Report, March, 1993

161. Monthly Progress Report, April, 1993

162. Monthly Progress Report, May, 1993

163. Monthly Progress Report, June, 1993

164. Monthly Progress Report, July, 1993

165. Monthly Progress Report, August, 1993

166. Monthly Progress Report, September, 1993

167. Monthly Progress Report, October, 1993

168. Monthly Progress Report, November, 1993

169. Monthly Progress Report, December, 1993

170. Monthly Progress Report, January, 1994

171. Monthly Progress Report, February, 1994

172. Monthly Progress Report, March, 1994

173. Monthly Progress Report, April, 1994

174. Monthly Progress Report, May, 1994

175. Monthly Progress Report, June, 1994

176. Monthly Progress Report, July, 1994

177. Monthly Progress Report, August, 1994

178. Monthly Progress Report, September, 1994

179. Monthly Progress Report, October, 1994

180. Monthly Progress Report, November, 1994

181. Monthly Progress Report, December, 1994

182. Monthly Progress Report, January, 1995

183. Monthly Progress Report, February, 1995

At the Crosby library...

1. Remedial Investigation Report - June, 1986

2. Remedial Investigation Appendices Volume I June, 1986 Revised from Feb. 1986

3. Remedial Investigation Appendices Volume II June, 1986 Revised from Feb. 1986

4. Remedial Investigation Appendices Volume III February, 1986
   Pages 1 and 2 of 10 Res. Engr Tab Missing
   Analytical Report Worksheet 7-8-9-10 Missing
   Pages 1 and 2 of 6 Missing
   Tab 9 H 1-8 Missing, H 11-19 Missing, Page 1 of 10 Missing
   Page 3 Worksheet Missing
   Tab 10 H 1-3 Missing, Page 3-6 of 6 Missing, Page 1-6 Missing
   Tab 12 Page 2-10 of 10 Missing

5. 1986 Field Investigation and Supplemental Remedial Investigation Report Volume I, December, 1986

6. 1986 Field Investigation and Supplemental Remedial Investigation Report Volume II, Appendices, December 1986

7. 1986 Field Investigation Hydrology Report, December 19, 1986

8. Feasibility Study Report, March 1987

9. Feasibility Study Report, March 1987

10. French Limited Site Focused Feasibility Study, May 1987

11. Endangerment Assessment Report February 1987

12. Endangerment Assessment Report April 1987

13. Endangerment Assessment Report April 1987

14. In Situ Biodegradation Demonstration Report Volume I Executive Summary October, 1987 (Revised 12-15-87)

15. In Situ Biodegradation Demonstration Report Volume II October 30, 1987

16. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume I, November 30, 1987
    Missing Supplements to 5-6 and 7 to 10

17. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume II, November 30, 1987 + Appendices

18. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume III, November 30, 1987 + Appendices

19. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume IV, November 30, 1987 -Appendices

20. In Situ Biodegradation Demonstration Supplemental Report French Limited Site Volume V - Appendices, November 30, 1987

21. Results of the French Limited Task Group Survey (Goldman and Company) April 1987

22. Goldman Public Relations Clipping Report

23. Consent Decree between the Federal Government and the FLTG

24. Consent Decree between the Federal Government and the FLTG

25. Laboratory Evaluation of Biodegradation at the French Limited Site, December 1986.

26. Field Evaluation of Biodegradation at the French Limited Site (Phase II) Volume I, March, 1987

27. Bioremediation Facilities Design Report Volume II of IV Appendices, Reports and Calculations March 20, 1991

28. Bioremediation Facilities Design Report Volume III of IV Appendix E - Design Specifications March 20, 1991

29. Bioremediation Facilities Design Report Volume IV of IV Air Monitoring, March 20, 1991

30. Remedial Action Plan Volume I, September 28, 1990

31. Remedial Action Plan Volume II - Quality Assurance, Revised June 3, 1991

32. Remedial Action Plan Volume II - Appendix A - Quality Assurance Sampling Procedures and Appendix B - Analytical Methods - B.1 - B.53, September 28, 1990

33. Remedial Action Plan Volume III - Health and Safety, July 20, 1990

34. Remedial Action Plan Volume V - Shallow Aquifer and Subsoil Remediation Process Design, July 20, 1990

35. Remedial Action Plan Volume V - Shallow Aquifer and Subsoil Remediation Process Design, July 20, 1990

36. Hydrogeologic Characterization Report, March 1989

37. Hydrogeologic Characterization Report Appendices, March 1989

38. Supplemental Biodegradation Equipment Evaluation French Limited Site - Phase IV, September 26, 1988

39. 1988 Equipment Evaluation Phase IV Report French Limited Site: Volume I, February 1, 1990

40. 1988 Equipment Evaluation Phase IV Report French Limited Site: Volume II, February 1, 1990

41. Site Safety and Health Plan French Limited Site - Phase III, April 1987 (Revision 2)

42. San Jacinto River May 19, 1989 Flood Event Report, June 1989

43. Post San Jacinto River May 1989 Flood Event Soils and Water Analysis Program Volume I, August 16, 1989

44. Post San Jacinto River 1989 Flood Event Soil and Water Analysis Program Volume II, Appendix A

45. Post San Jacinto River 1989 Flood Event Soil and Water Analysis Program Volume III, Appendix A, August 16, 1989

46. 1988 Slough Investigation Report French Limited Site, October 1988

47. Flood and Migration Control Wall Design Report, August 16, 1989

48. Flood and Migration Control Wall Design Report (Flood is spelled incorrectly on Volume Cover) + Appendix C - Access way Design September 1989

49. Installation Report for Flood and Migration Control Wall January 8, 1990

50. Installation Report for Flood and Migration Control Wall
Appendix A - ENSR Site Logs

51. Installation Report for Flood and Migration Control Wall
Appendix B - Inspection Reports

52. Installation Report for Flood and Migration Control Wall
Appendix C - Pile Driving Inspection Report January 8, 1990

53. Flood Wall Gate Test Report French Limited Site, February 1990

54. North Pit Remediation Report French Limited Site, November 6, 1989

55. Workplan for the Shallow Aquifer Pumping Tests for the French Limited Site, July 22, 1988
(Additional Title - Pumping Test Program for Shallow Alluvial Aquifer Zone)

56. French Limited Site Hurricane Gilbert Preparation Report October, 1988

57. Riverdale Lake Area Remediation Program, August 15, 1989

58. Addendum to Quality Assurance Project Plan for the French Limited Site In Situ Biodegradation Demonstration Phase III, February 16, 1990

59. Potable Water Well Installation Report French Limited Site, December 7, 1988

60. Bioresidue Fixation Alternatives Evaluation Report French Limited Site March 20, 1989

61. Ambient Air Impact Risk Assessment Report, May 5, 1989

62. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume I of III - Summary Report and Appendices A-H, July 1991

63. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume II of III - Appendices I-M, June 1991

64. Shallow Aquifer and Subsoil Remediation Facilities Design Report Volume III of III - Appendices N-P, June 1991

65. French Ltd. Remediation Design Report Executive Summary Bioremediation Shallow Aquifer July 1991

66. BioGEE International, Inc., Project Report Biotreatability Study Using Isolated Indigenous Organisms, April 15, 1994

67. Black EPA Binder

68. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 1, Report, Appendices A-E

69. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 2, Appendix F

70. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 3 Appendix F continued

71. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 4, Appendix G

72. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 5, Appendix H

73. CH2M Hill, Cell E Verification Remediation Report, May 1993, Volume 6, Appendix H continued

74. Equipment Evaluation Phase IV Report November, 1987 Monthly Report

75. Equipment Evaluation Phase IV Report December, 1987 Monthly Report

76. Microfiche Field Reports 1988 -small box

77. Annual Groundwater Monitoring Report, December 1993, Report and Appendices A-B

78. Annual Groundwater Monitoring Report, December 1993, Appendices C-H

79. DNAPL Study Remedial Alternative Selection and Feasibility Study Report, November 1994

80. Cell E and Cell D/F Remediation Verification Report

81. French Limited Wetlands Mitigation, Final Site Restoration Plan

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85. Quality Assurance Report, January 20, 1994, Report No. QA94001

86. Environmental Protection Agency, Region VI, Hazardous Waste Management Division, First Five Year Review (Type Ia), CERCLIS TXD-980514814, December 1944

87. ARCS, French Limited Site 1993, Annual Groundwater Sampling and Comparison Report, CH2M Hill, January, 1995

88. Annual Groundwater Monitoring Report, December, 1994, Report and Appendices A-G

89. Monthly Progress Report, January, 1992

90. Monthly Progress Report, January, 1992, Appendices A-C

91. Monthly Progress Report, January, 1992, Appendices E-F

92. Monthly Progress Report, January, 1992, Appendix G

93. Monthly Progress Report, February, 1992

94. Monthly Progress Report, February, 1992, Appendices A-B

95. Monthly Progress Report, February, 1992, Appendices C 1

96. Monthly Progress Report, February, 1992 Appendices C 2

97. Monthly Progress Report, February, 1992 , Appendices D-E

98. Monthly Progress Report, March, 1992

99. Monthly Progress Report, March, 1992, Appendix A

100. Monthly Progress Report, April, 1992

101. Monthly Progress Report, April, 1992, Appendices A-B

102. Monthly Progress Report, May, 1992

103. Monthly Progress Report, May, 1992, Appendices A-B

104. Monthly Progress Report, June, 1992

105. Monthly Progress Report, June, 1992, Appendices A-B

106. Monthly Progress Report, July, 1992

107. Monthly Progress Report, July, 1992, Appendices A-B

108. Monthly Progress Report, July, 1992, Appendices B1-B22 Vol. 1 of 3

109. Monthly Progress Report, July, 1992, Appendices B1-B22 Vol. 2 of 3

110. Monthly Progress Report, July, 1992, Appendices B1-B22 Vol. 3 of 3

111. Monthly Progress Report, August, 1992

112. Monthly Progress Report, August, 1992, Appendices A-B

113. Monthly Progress Report, September, 1992

114. Monthly Progress Report, September, 1992, Appendices A-B

115. Monthly Progress Report, October, 1992

116. Monthly Progress Report, October, 1992, Appendices A-B

117. Monthly Progress Report, November, 1992

118. Monthly Progress Report, November, 1992, Appendices A-B

119. Monthly Progress Report, December, 1992

120. Monthly Progress Report, December, 1992, Appendices A-B

121. Monthly Progress Report, January, 1993

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143. Monthly Progress Report, November, 1994

144. Monthly Progress Report, December, 1994

145. Monthly Progress Report, January, 1995

146. Monthly Progress Report, February, 1995

12 Large Brown Folders:

1. Administrative Record Index - 2 folders
   Administrative Record 09-26-79 thru 05-29-83
   Administrative Record 06-03-83 thru 11-28-83
   Administrative Record 02-28-84
   Administrative Record 03-09-84
   Technical Comments on Remediation Investigation Report 2-84
   Supplemental Investigation - Resource Engr. 1-84
   Administrative Record 3-9-84

2. Administrative Record 08-31-84
   Administrative Record 10-29-84 thru 01-22-85
   French Ltd. Technical and Regulatory Concepts for In-Place Closure, 09-84
   Supplementary Investigation, May 1984
   French Ltd. Field Activities Work Plan, February 1985
   Supplementary Investigation Attachments, May 1985

3. Administrative Record 02-04-85
   Remedial Investigation, Vol. I Report, April 1985
   Remedial Investigation, Vol. II Appendices, April 1985

4. Administrative Record 04-08-85 thru 11-26-85
   Administrative Record 02-14-86 thru 04-04-86
   Technical Report for Resource Engineering, 12-03-85
   Appendix QA Program for French Ltd., 12-18-85
   1985 Field Investigation Report Appendices, January, 1986
   1985 Field Investigation Report , January, 1986

5. Administrative Record 04-01-86
   Remedial Investigation Report Appendices, Vol. II, April, 1986

6. Administrative Record 4-1-86

7. Administrative Record 05-08-86 thru 05-12-86
   Administrative Record 06-01-86
   Administrative Record 01-05-87
   Remedial Investigation Report, June 1986
   Laboratory Evaluation of Biodegradation, 12-86
   1986 Field Investigation Hydrology Report, 12-86
   Endangerment Assessment Report, 2-87

8. Feasibility Study, March 1987

9. Administrative Report 03-11-87 thru 03-25-87
Administrative Report 4-1-87
Administrative Report 4-7-87
In Situ Biodegradation Demonstration Phase III QA Project Plan 3-87
Endangerment Assessment Report, 4-87
Proposed In Situ Biodegradation Demonstration French Limited Site Phase III 4-87

10. Administrative Report 4-15-87 thru 5-1-87
Administrative Report 5-21-87 thru 7-2-87
French Limited Focused Feasibility Study, ERT 5-87
Revised Field Evaluation of Biodegradation at French Site Phase II Vol. I
-Revised 7-10-87

11. Administrative Report 7-20-87 - 11-23-87
Administrative Report Undated Documents 000122-000134
In Situ Biodegradation Demonstration Report Vol. I Executive Summary 10-87
French Limited Site Work Plan Vol. I Project Activities and Sample Plan

12. Texas Air Control Board Regulations I thru IX
Standard Exemption List
Application for Permit

During the month of March, the status of both libraries have been reviewed and the above information found to be accurate.

9.2 Problem Areas and Solutions

Problem	Solution
Trees in excavation area.	Transplant desirable trees to temporary nursery area; treat large trees with nutrients.
Water inflow to site.	Seal culverts; secure sewer lines and stormwater lines; regular pumping.
Safety awareness	Daily safety meeting; lottery ticket program; frequent equipment inspections.
Excavation in wet, soft areas.	Revise work schedule to allow drainage; pump water on "off" days.

9.3 Problems Resolved

None.

9.4 Deliverables Submitted

February, 1995, Monthly Report.

9.5 Upcoming Events and Activities

Daily safety program.

Continue civil work on site.

Replace topsoil and vegetate.

Contour site.

Develop detailed cost estimate for Brownwood.

Start re-vegetation.

Develop forecast of maintenance requirements.

Develop community relations plan.